

**Hunters Point Shipyard
Installation Restoration Program
Public Information Materials**

**24 April 2003
Public Meeting/Restoration Advisory Board Meeting
Held at Dago Mary's Restaurant
San Francisco, California**

Materials/Handout Include:

- Agenda for 24 April 2003 RAB Meeting/Minutes from 27 March 2003 RAB Meeting
 - ⇒ Includes: Table 1, RAB Member Roll-Call Sheet; and
 - ⇒ Action Items from 27 March 2003 RAB Meeting
- Reporters Transcript from 24 April 2003 RAB Meeting
- PowerPoint Presentation, Hunters Point Shipyard HRA Update, 22 April 2003
- Handout, EPA Scanner Van Report, 24 April 2003
- Radiological Scanner Van Survey, Hunters Point Naval Shipyard, California, September 9-12, 2002
- EPA Fact Sheet, Ionizing Radiation Series No. 1, General Description, September 1990
- HPS Environmental Cleanup Newsletter, October-December 2002
- Meeting Minutes, HPS RAB Radiological Subcommittee, 26 March 2003
- Meeting Minutes, HPS RAB Membership & Bylaws Subcommittee, 8 April 2003
- Meeting Minutes, HPS RAB Technical (Review) Subcommittee, 10 April 2003
- Flyer, Arc Ecology, Radiation ... & the Hunters Point Shipyard
- Flyer, San Francisco Human Rights Commission, Workshop: Energy Savings & Energy Efficiency

Standard Handouts Not Included in this Packet:

- HPS List of Acronyms and Abbreviations
- HPS Mailing List Update Form
- HPS RAB Membership Application Form
- HPS Bylaws

**HUNTERS POINT SHIPYARD
RESTORATION ADVISORY BOARD (RAB) - MEETING AGENDA
THURSDAY, 24 APRIL 2003**

Day/Date:
Thursday – 24 April 2003
Time:
6:00 p.m. to 8:10 p.m.

Location:
Dago Mary's Restaurant
Hunters Point Shipyard
Building # 916
San Francisco

Facilitator:	Marsha Pendergrass
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Time	Topic	Leader
6 00 p m. – 6.10 p.m	Welcome/Introductions/Agenda Review	Marsha Pendergrass <i>Facilitator</i>
6.10 p m – 6 15 p.m.	Approval of Meeting Minutes from 27 March 2003 RAB Meeting <ul style="list-style-type: none"> Action Items 	Marsha Pendergrass
6:15 p m – 6 20 p.m	Navy Announcements	Keith Forman <i>Navy Co-chair</i>
	Community Co-chair Report/Other Announcements	Lynne Brown <i>Community Co-chair</i>
6:20 p m. – 7 00 p.m	Radiological Program Update	Laurie Lowman <i>Radiological Affairs Support Office (RASO)</i>
7:00 p.m. – 7:10 p.m.	BREAK	
7:10 p.m. – 7 40 p m	US EPA Hunters Point Shipyard Scan Van Presentation	<i>US EPA Representative</i>
7:40 p m. – 8.00 p.m	Subcommittee Reports	Subcommittee Leaders
8 00 p m. – 8.10 p.m	Future Agenda Topics/ Open Question & Answer	Marsha Pendergrass
8.10 p m	Adjournment	Marsha Pendergrass

HPS web site: <http://www.efdswnavfacnavy.mil/Environmental/HuntersPoint.htm>

RAB Navy Contact: Mr. Keith Forman (619) 532-0913 or (415) 515-6216

- - - P U B L I C N O T I C E - - -
H U N T E R S P O I N T S H I P Y A R D
Restoration Advisory Board Meeting

♦ ♦ ♦
6:00 P.M. - 8:00 P.M.

Thursday, April 24, 2003

Dago Mary's Restaurant

Hunters Point Shipyard, Building #916
San Francisco

The Restoration Advisory Board (RAB) is composed of concerned citizens and government representatives involved in the environmental cleanup program at Hunters Point Shipyard. Community participation and input is important and appreciated. The purpose of this meeting is to present the community with the current status and future cleanup schedule for Hunters Point Shipyard and to address the concerns of the entire community. Following is a list of the Key Topics to be discussed at the meeting:

- ♦ Radiological Program Update
- ♦ Presentation on Scan Van Technology
- ♦ RAB Subcommittee Reports

The interested public is welcome!

♦ ♦ ♦
For more information about this meeting and the Installation Restoration Program at Hunters Point Shipyard, please contact:

Mr. Keith Forman, BRAC Environmental Coordinator
Southwest Division Naval Facilities Engineering Command
1230 Columbia Street, Suite 1100, San Diego, CA 92101
(619) 532-0913 or (415) 515-6216

HUNTERS POINT SHIPYARD
RESTORATION ADVISORY BOARD MEETING MINUTES
27 MARCH 2003

These minutes summarize the discussions and presentations from the Restoration Advisory Board (RAB) meeting held from 6:00 P.M. to 8:10 P.M., Thursday, 27 March 2003 at Dago Mary's Restaurant (Building #916 at the Shipyard). A verbatim transcript was also prepared for the meeting and is available in the Information Repository for Hunters Point Shipyard (HPS) and on the Internet at www.efds.w.navy.mil/Environmental/HuntersPoint.htm. The list of agenda topics is provided below. Attachment A provides a list of attendees. Attachment B includes action items that were requested and/or committed to by RAB members during the meeting.

AGENDA TOPICS:

- 1) Welcome/Introductions/Agenda Review
- 2) Approval of Meeting Minutes from 27 February 2003 RAB Meeting
- 3) Navy Announcements/Community Co-chair Reports/Other Announcements
- 4) Radiological Program Update
- 5) BEEP & CRP Update
- 6) Subcommittee Reports
- 7) Future Agenda Topics/Open Question & Answer
- 8) Adjournment

MEETING HANDOUTS:

- Agenda for 27 March 2003 RAB Meeting/Minutes from 27 February 2003 RAB Meeting
 - Includes: Table 1, RAB Member Roll-Call Sheet; and
 - Action Items from 27 February 2003 RAB Meeting
- Monthly Progress Report, February 2003
- PowerPoint Presentation, Current Radiological Issues, 27 March 2003
- PowerPoint Presentation, BEEP! Event and CRP Update, 27 March 2003, HPS RAB Meeting
- Meeting Minutes, HPS RAB Membership & Bylaws Subcommittee, 11 March 2003
- Meeting Minutes, HPS RAB Technical (Review) Subcommittee, 12 March 2003
- Meeting Minutes, HPS RAB Economic Subcommittee, 12 March 2003
- Hunters Point Shipyard, Historical Radiological Assessment, Fact Sheet No. 1, 12 March 2003

Welcome / Introductions / Agenda and Meeting Minutes Review

Liz Whitted Dawson, facilitator, called the meeting to order at 6:02 P.M. All in attendance made self-introductions. Ms. Whitted Dawson began the meeting with an agenda review and asked if there were any changes or modifications. No changes were made. Ms. Whitted Dawson then asked if there were any changes to the minutes; of which there were none. The meeting minutes were approved.

Ms. Whitted Dawson reviewed the Action Items contained in the February minutes and asked for a status of each item. Carry-Over Item 1 and New Item 1 were completed to the satisfaction of the RAB. However, New Item 2, was returned to the Membership & Bylaws Subcommittee.

1 **Navy and Community Co-chair Reports/Other Announcements**

2 Dave DeMars, Navy Lead RPM, said that Mr. Keith Forman, Navy Co-Chair, regrettably was
3 not present for the meeting because he was in Korea on military reserve duty. Mr. DeMars also
4 pointed out that he provided some handouts with a list of documents that had gone out to BCT
5 and the public for review that he wanted to touch on. Mr. DeMars provided a summary of the
6 status of those documents that included the Base Realignment and Closure (BRAC) business
7 plan which is due out next week; the Historical Radiological Assessment (HRA) Response to
8 Comments that went out on the 7th of March; and the Parcel C Phase III Groundwater Data Gap
9 Study that went out just a few days previous. Mr. DeMars suggested that both the HRA and the
10 Data Gap Study could go to subcommittees to review and discuss at future subcommittee
11 meetings. Lynne Brown, RAB Community Co-chair, had no report.

12 **Reminder: The next RAB meeting will be held from 6:00 to 8:10 P.M., Thursday evening,**
13 **24 April 2003 at Dago Mary's Restaurant, Building #916 on the Shipyard.**

14 **U.S. Navy RASO Presentation**

15 Ms. Whitted Dawson turned the meeting over to Laurie Lowman, US Navy Radiological Affairs
16 Office (RASO). Ms. Lowman initiated her presentation with an update on the status of the HRA.
17 She stated that there were significant comments to the draft HRA issued 29 March 2002. Those
18 comments have been consolidated into a single package and was submitted 07 March 2003. She
19 said that copies were available at the Anna E. Waden Library and the SF Main Library.
20 Ms. Lowman reminded the audience that the Navy's goal for the HRA was to produce an
21 accurate and comprehensive document that detailed all radiological operations at the former
22 Naval Radiological Defense Laboratory (NRDL) at HPS, and they were doing so by conducting
23 historical research and visual inspection of the sites. She stated that they have compiled
24 thousands of historical documents that they are going through. They are also conducting in-depth
25 interviews with personnel that have knowledge of former radiological operations at HPS.
26 Ms. Lowman said she anticipates completing the historical data collection by 01 April 2003.
27 They will then review and summarize the historical information, and populate a RASO database
28 by 01 May 2003. Their target date for distribution to the regulators and the public is 01 August
29 2003.

30 According to Ms. Lowman, RASO asked for and received declassification of thousands of pages
31 of records and they are declassifying as many as they possibly can. She indicated that most of the
32 classified records had to do with technical data from the atomic weapons testing and not directly
33 related to radiological operations at NRDL.

34 Ms. Lowman stated that they are still receiving responses for interviews; with a total of 207
35 respondents and 161 requesting an interview. Of the 161, they are conducting telephone
36 screening in an effort to isolate those with sufficient historical information to conduct a person-
37 to-person interview. She indicated that the respondents include former employees at NRDL or at
38 HPS; former employees at Triple A Machine Shop; employees from Mare Island Naval Shipyard
39 that actually did work at HPS; former active duty personnel stationed on the ships that came in to
40 the port of HPS, or that were actually stations in NRDL or HPS; and contactors employed by
41 HPS, Triple A, or NRDL. They have also gotten responses from current employees and tenants
42 on base. Additionally, they have gotten responses from family members and friends of former
43 employees that are now deceased.

44 Ms. Lowman assured all in attendance that there is no liability to the respondents and that they
45 are encouraging everyone to speak freely; RASO is not interested in any legal action. They are
46 looking for the best and most accurate historical information that they can possibly find.

1 Additionally, they are not authorizing the use of the information for any thing other than the
2 HRA unless authorized by the interviewee.

3 Ms. Lowman said that the Navy is trying to make certain that the public is kept up to date with
4 regard to new data that is different from previous information. The newest information they have
5 found is for Buildings D-19, D-20, and D-21. According to Ms. Lowman, this is the current site
6 of Mariner's Village. The buildings were used by NRDL Materials and Accounts Division,
7 which was part of the administrative section of the NRDL. According to Ms. Lowman, these
8 buildings were responsible for store rooms, materials procurement, payroll, and administrative
9 functions for the NRDL. The NRDL was an entirely self-sufficient organization.

10 The Procurement Division would have ordered/procured radioactive material; however, they
11 would not have stored it because it would not have complied with appropriate procedures under
12 the Atomic Energy Commission (AEC). She stressed that, at this time, there is no indication that
13 the buildings were ever used for storage of radioactive material. According to Ms. Lowman, the
14 buildings located outside of the current HPS boundary, were constructed in the early 1940s and
15 demolished in 1952 to make way for a housing project. The historical records indicate the
16 buildings were used temporarily while Building 351B (currently Building 366) was being
17 constructed.

18 Ms. Lowman presented the status of future radiological actions that are taking place which
19 included the continuation of the characterization of the low-level radiological contamination
20 found in Building 253; field work scheduled to begin at Building 366 on Monday (31 March);
21 continue preparation of the Phase V radiological investigation reports; and continue with the
22 HRA effort.

23 Ms. Whitted Dawson opened the floor to questions. Marie Harrison, RAB member, asked
24 Ms. Lowman if she was certain there was no off-site storage down on Innes Avenue, outside of
25 the main gate. According to Ms. Harrison, one of the Innes Avenue neighbors uncovered a five-
26 inch Navy shell while planting a garden. Ms. Harrison asked if it was possible that other things
27 could possibly be stored and/or buried outside the gate also. Ms. Lowman stated that the data
28 suggest that the areas in question were used for Navy housing, but that certainly something could
29 have been stored out there. She stated that she would have to ask that question of SWDIV, and
30 Mr. DeMars confirmed that the Navy would look into that.

31 Ahimsa Sumchai, RAB member, asked if it was reasonable to draw the conclusion that buildings
32 D-19 through D-21 had radioluminescent paint in them if the buildings were used for storage
33 prior to these items going to Building 351B. Ms. Lowman agreed that yes, that conclusion was
34 reasonable; however, the radioluminescent paint was used by the Instruments Division, which
35 was in 351B (currently 366). The Materials and Accounts division was entirely separate from the
36 Instruments division. Ms. Lowman reminded the audience that the research is ongoing, but that
37 to-date, she has found no indication that radioluminescent paint was stored in D-19, D-20, or
38 D-21.

39 Maurice Campbell, RAB member, stated that he had spoken with Lisa Davis and apparently the
40 RASO HRA team had not yet interviewed the people that she had interviewed. Additionally,
41 Mr. Campbell stated that he received a call from Tom Olson who was concerned that the RASO
42 HRA team had not made contact with him yet. Mr. Campbell also asked if access to Building
43 815 was being denied. Ms. Lowman explained that she had contacted Lisa Davis early on and
44 Ms. Davis is requiring that a written request be provided to her for the names and phone numbers
45 of people that she interviewed. Ms. Lowman is compiling a list of questions to be formally
46 submitted by the Navy to Ms. Davis. Ms. Lowman said that she spoke to Mr. Olson the previous
47 day at length until he was no longer able to talk on the phone, and she suggested that she will be

1 talking with him again in the near future. Ms. Lowman indicated that Building 815 is a Formerly
2 Used Defense Site (FUDS), and as such is under the jurisdiction of the Army Corps of Engineers
3 (COE). She said that the current property owner is protective of his building and property, and
4 that when the Navy attempted a site visit to look at the tanks and manholes, the property owner
5 was not very receptive. She did not know of any plans that RASO had for Building 815, but
6 historical data will be provided in the HRA.

7 Dr. Sumchai stated that a Radiological Subcommittee had been attended by Mr. Vincent, COE
8 representative to specifically address Building 815. Dr. Sumchai requested that Amy Brownell,
9 SF Dept. of Public Health, provide some information about her department's investigation at the
10 building. Ms. Brownell stated that they received a great deal of information from the property
11 owner that they had reviewed and their assessment of the current situations is that the tanks are
12 being used for collection of rainwater and groundwater that is pumped into the sewer. According
13 to Ms. Brownell, the tanks were cleared for radioactive levels. Details are provided in the HRA
14 how the tanks were cleared. She stated that communications are taking place with Mr. Vincent to
15 identify what the COE intends to do with the site because they do have the final sign-off of the
16 FUDS site. She will provide updates as they become available.

17 Raymond Tompkins, RAB member, requested that the HRA provide details with regard to
18 different types of jobs and areas that people worked at HPS in an effort to obtain a true picture of
19 the data. Ms. Lowman stated that she had respondents from senior-level managers at NRDL,
20 including the director, to laborers, riggers, machinists, radiographers, biochemists; a very broad
21 range of respondents. Mr. Tompkins confirmed that it would be important to provide the
22 diversity of respondents on a map if possible.

23 Georgia Oliva, RAB member, asked Ms. Lowman where the chemicals were stored that were
24 ordered by Materials and Accounts Division (if not in D-19, D-20, or D-21). Ms. Lowman
25 reiterated that she said the radioactive material that might have been ordered by the Procurement
26 Dept. did not get delivered there; that would not have been a standard practice, nor would it have
27 followed the regulations in place at the time. She suggested that the materials would have likely
28 gone to the laboratory buildings used by NRDL; 351, 529, 520, 507 and 506 in Parcel E.
29 Ms. Lowman stated that all of the buildings have been demolished, but investigations are taking
30 place in the areas where the buildings were once located and the perimeters of the former
31 building sites.

32 Melita Rines, RAB member, asked why the handout did not reflect Building D-23. Ms. Lowman
33 said that was because the handout only reflected the buildings that were used by NRDL outside
34 of HPS. Richard Lowman, Navy RASO, stated that during the interview process, the Navy
35 RASO team is asking the respondents if they recall anything at the top of the hill outside the
36 gate. He indicated that they have yet to talk to anyone with any knowledge of NRDL activities
37 on the hill.

38 Mr. Brown asked if all of the documents have been declassified. Ms. Lowman provided some
39 details regarding an agency's "equity" in a document and how the declassification process
40 works. She then stated that they declassified every document that they could. What remains of
41 classified documents are related to technical data/specifications and remote site testing that were
42 not conducted at HPS.

43 Andrew Bozeman, attendee, asked if there will be an interim version of the HRA provided for
44 public review and comment. Ms. Lowman stated that the final draft document coming out on
45 1 August 2003 will provide for a review and comment period. She explained that, due to the
46 number and significance of the changes made to the original draft document, RASO needed to
47 resubmit the document for a public review period.

1 Mr. Tompkins asked if the RASO HRA team is asking interviewees if they have knowledge of
2 the underground facility in Parcel A. The facility was supposedly an effort to protect scientists
3 and supplies during WWII. Ms. Lowman stated that Building 815 was specifically designed to
4 withstand an atomic blast, which is why all the scientists were in there. She indicated that she
5 had not heard anything about the underground facility.

6 Mr. Tompkins stated that when their community survey was completed, it was found that 12
7 families died of cancer on old Navy Road behind where the old accelerators were. He asked if
8 RASO could provide the radiation exposure at the time of accelerator operations. Ms. Lowman
9 suggested that they do have some information about the operations, and she would see what she
10 could find.

11 Break called (7:01 p.m.)

12 **BEEP and CRP Update Presentation**

13 Ms. Whitted Dawson turned the floor over to Carolyn Hunter, Tetra Tech EMI. Ms. Hunter
14 began her presentation with a brief update on the previous week's project with some local 5th
15 graders. Ms. Hunter said the Bayview Opera House Environmental Education Program (BEEP!)
16 field trip to HPS is part of three different field trips completed during the spring semester. The
17 purpose of the field trips is to introduce elementary school students to different career
18 opportunities. The schools that participated this year included Malcolm X Academy, Charles
19 Drew Elementary, and Carver Elementary.

20 The students started the field trip at the Shipyard with a presentation from the SF Redevelopment
21 Agency that showed the children what the Shipyard is going to look like in 5 years. Architectural
22 models were brought in for the students to view. Following the SF Redevelopment Agency
23 presentation, the students were taken on a bus tour where Navy representatives provided them
24 with different highlights of HPS. The students were then driven up to the Officers Club in Parcel
25 A, where they met with Navy and EPA representatives for a brief history of HPS.

26 The highlight of the field trip for the students was the "hands on" learning opportunity with
27 environmental specialists from Tetra Tech. Four plastic children's pools were filled with clean
28 playground sand. A group of 10 Tetra Tech employees divided the children into small groups
29 and dressed some of them up in protective clothing, including special Tyvek® suits, hard hats,
30 goggles, and gloves, to sample for different types of "contamination." To represent typical
31 environmental contaminants that environmental scientists look for while doing their job, nuts and
32 bolts (metal debris), chocolate syrup (oil), sticky slime (cleaning solvents), and glitter (metal
33 filings) were buried in the sand. The children formed four field teams and learned how to
34 systematically investigate each area in search of the pretend "contamination." After locating the
35 pretend contaminants, "samples" were collected and labeled. The children were also taught the
36 importance of health and safety procedures when sampling.

37 The students are provided with booklets to write down things they learned that day. The
38 information in the booklets then gets translated into art projects throughout the semester, and, at
39 the end of the year they create ceramic tiles of their adventures that will go up in various location
40 in the community, including Sophie Maxwell's office and the opera house.

41 For the second part of her presentation, Ms. Hunter provided an update of the Community
42 Relations Plan (CRP), stating that they were talking to people in the community to get their
43 feedback regarding involvement and HPS concerns, and providing them with points of contact to
44 voice their concerns. They formed an ad hoc subcommittee and conducted a couple of meetings
45 to review and condense the list of interviewees and to review the draft list of questions to narrow
46 them down and personalize them for the HPS community. The interview process was initiated in

February 2003; they have completed 32 of the 40 interviews, and have placed calls to over 150 community groups and residents.

Lani Asher, RAB Member, asked if they were successful in getting in touch with any of the Shipyard artists. She indicated that until some of the artists had been interviewed, she considered the CRP Update inadequate. Ms. Hunter stated that the interview process is still ongoing and they are making every effort to interview some of the local artists. They have spoken to local churches, community members, local businesses, school leaders, homeowner's associations, and regulatory agencies. She expects the last of the interviews to be conducted within the next couple of weeks. Additionally, the Navy has given presentations to ROSES, Ujamaa, Asian-American Group, All Hallows Residents, and Samoan Bayview Community Group. They are also researching places to provide fliers and meetings to get more of the community involved.

The responses from the local community include their interest in having more information provided to them on the on-going cleanup efforts at HPS; they want clear and straightforward information; they would like to see more short, one-page type fliers to be distributed throughout the community; they would like more contact with the Navy including presentations to their local groups; and they would like to see more outreach to the schools. They were also very interested in seeing information on the reuse of HPS.

Once the interview process is complete, the results will be summarized and included in the draft Community Relations Plan due for distribution at the end of May. The final CRP is due out in fall.

Ms. Whitted Dawson opened the floor to questions. Ms. Oliva asked if Ms. Hunter could provide her with some details regarding a situation that took place in Parcel A a few weeks previous. Ms. Oliva indicated that there was some sandbags and black plastic covering a pile of material located behind Building 101. She stated that the pile was moved on Tuesday morning down to the area of the contractor staging area. Ms. Oliva asked that if Parcel A is considered clean, what was the material under the plastic. Doug Bielskis, Tetra Tech EMI, stated that he did not know what the material was, but that he would look into it. Note: this was later determined to be the transport of sandbox sand and other clean materials for the above referenced BEEP event.

Nita Hines, CAC member, asked that CAC be added to the list of community outreach presentations provided by the Navy. She also asked if there would be a list of CRP interviewees available for review and suggested that the Navy hire community residents to distribute fliers. Ms. Hunter explained that the interviewees that agreed to be acknowledged would be included in the draft CRP. Karen Pierce, RAB member, asked if the historical information presented to the students included a discussion about the impact of HPS on the migration of blacks from the south or the economic impact that allowed women to go to work during the war and to work in nontraditional jobs. Ms. Hunter explained that there was not sufficient time for such material to be presented to the children. Ms. Pierce considered there was value in providing an opportunity for hope to these children and that there is another story that can be told to enable the relationship between the community and HPS to be a positive one. Dorothy Peterson, RAB member, suggested that it was very important to clarify that the regulators that were interviewed (for the CRP) were not considered part of the 40 to be interviewed.

Subcommittee Updates

Economic Development Subcommittee (Maurice Campbell, Leader)

Mr. Campbell stated that the Economic Subcommittee meeting was held on 12 March 2003, where Navy representatives included Charles DePew, Contracting Officer; Chon Son, Contract Specialist; David DeMars; and Keith Forman. Mr. Campbell stated that the main topic was the

1 past contracting performance for the local community at 94124. While previous operations were
2 under San Bruno, zero dollars were counted toward the community. Mr. Campbell suggested that
3 they were attempting to identify how to change past performance regarding the local community.
4 Both Mr. Son and Mr. DePew stated that they had problems in the past finding local businesses,
5 but that they would work with some of the local contractors, thereby directing some of the
6 contracts to the local communities. They also suggested they would have discussions with some
7 of the prime (contractors). Mr. Campbell then asked for confirmation regarding the ITSI contract
8 and the effort by Tetra Tech EMI, Ron Keichline, and others. He stated that he would be meeting
9 with ITSI to find out what their local participation and dollar amounts are. The Economic
10 Subcommittee intends to monitor all the contracts coming to HPS.

11 Mr. Campbell said the next meeting of the subcommittee will be at 3:00 P.M., April 9th, at 1790
12 Yosemite Ave, Second Floor.

13 Radiological Subcommittee (Ahimsa Sumchai, Leader)

14 Dr. Sumchai said that the February subcommittee minutes would be submitted via email in the
15 coming week, with hard copies available at the next RAB meeting. She said there was a
16 discussion about concerns raised at the last RAB regarding Building 351B/366 on Parcel D.
17 According to Dr. Sumchai, the building has been designated as a Class 1-impacted area under the
18 MARSSIM survey. The building is scheduled to undergo a 100% survey 31 March 2003. The
19 subcommittee also focused on Parcel E and the budget shortfall that impacted it.

20 Dr. Sumchai said the next meeting of the subcommittee will be on April 23rd from 6:00 to 8:00
21 P.M., at Literacy for Environmental Justice located at 6220 Third Street at Hollister. She
22 suggested that the focus of the next subcommittee meeting will be on a review of the response to
23 public comments to the HRA.

24 Technical Review Subcommittee (Barbara Bushnell, Interim Leader)

25 Ms. Bushnell indicated that copies of the minutes were provided in the back of the room. She
26 stated that there was a discussion about her being the facilitator of the meeting and her ability to
27 attend BCT meetings. She commented that she is retiring from the University of California on 30
28 April and will then be able to attend the BCT meetings. Ms. Bushnell explained that they had a
29 good discussion regarding Mr. Brooks' zero-valent iron technology presentation at the last RAB
30 (February). She stated that they also discussed the size and number of areas that were
31 contaminated at HPS, the four other plumes of TCE contaminants in Parcel C and other potential
32 plumes in Parcel E. There were discussions about groundwater at HPS and future work that
33 includes the use of bacteria microbes for the destruction of VOCs. Ms. Bushnell indicated that
34 she provided some resources that she found on the Internet, and some chemical structures with
35 the meeting minutes.

36 Ms. Bushnell said that the next meeting of the subcommittee will be on April 10th at 6:00 P.M. at
37 the Anna Waden Library.

38 Risk Review and Health Assessment Subcommittee (Karen Pierce, Leader)

39 Ms. Pierce stated that she is still having technology problems and she apologized for not having
40 documentation to summarize the meeting. She stated that they met and received written
41 responses to their questions from ATSDR. She hoped to have copies of February's meeting
42 minutes and copies of ATSDRs written responses at the next RAB.

43 Ms. Pierce said the next meeting of the subcommittee will be at 6:00 P.M., April 22nd at the
44 Bayview Advocates office, located at 5021 Third Street.

1 Membership & Bylaws Subcommittee (Keith Tisdell, Leader)

2 Melita Rines, RAB member, stated that they had two new Asian-American applicants that did
3 not show up to the meeting and were not voted on. She said that she requested that they attend
4 the next bylaws meeting. The subcommittee rules state that anyone who applies to become a
5 member needs to submit their application to the subcommittee and then attend a bylaws meeting
6 before the full RAB can determine whether or not they are going to vote them in. They also
7 decided that Ronald Keichline will provide copies of new applications at each RAB meeting.
8 This will give the RAB members an opportunity to review new applicants. The subcommittee
9 also decided to put into practice the amount of time that members remain as members, which
10 according to the bylaws, happens to be 2 years. All members will now be required to resubmit an
11 application if they wish to renew following their 2 year term. They briefly discussed the conflict-
12 of-interest issue and elected to table it because they did not see an issue.

13 The next meeting of the Membership & Bylaws Subcommittee will be at 6:00 p.m., April 6th at
14 the Anna Waden Branch Library.

15 Other Discussions/Topics

16 The following items were also discussed at the RAB meeting. A verbatim account of these
17 discussions is included in the Information Repository for HPS and may also be found on the HPS
18 web page at www.efds.w.navy.mil/Environmental/HuntersPoint.htm

- 19 • James Morrison, RAB member, suggested that it was inappropriate to not accept the
20 Asian-American applicants because they did not show up for the subcommittee meeting.
21 He said that it does not state in the bylaws or on the application that they are required to
22 attend. Ms. Rines stated that was the reason that they were not approved was because the
23 members did not meet them or speak with them; however, they will be considered at
24 future meeting. It was determined that this topic needs to be resolved and will be included
25 on the Agenda for April's RAB Meeting.
- 26 • Lea Loizos, RAB member, clarified the minutes from the Technical Subcommittee
27 meeting regarding soil vapor extraction (SVE) treatment and a reference to purple
28 potassium permanganate in the Bay. Ms. Loizos stated that SVE is not the same as the
29 treatment that was used for the potassium permanganate in the Bay.

30 Future Agenda Topics

31 There were no further announcements and one future agenda topics presented (noted above). The
32 meeting was adjourned at 8:10 P.M.

33 **Reminder: The next RAB meeting will be held from 6:00 to 8:10 P.M., Thursday evening,**
34 **24 April 2003 at Dago Mary's Restaurant, Building #916 on the Shipyard.**

ATTACHMENT A

27 MARCH 2003 - RAB MEETING
LIST OF ATTENDEES

Name	Association
1. Christine M. Niccoli	Niccoli Reporting, court reporter
2. Liz Whitted Dawson	Pendergrass & Associates
3. Dave DeMars	Navy Lead Remedial Project Manager
4. Laura L. Lowman	Navy, RASO
5. Richard Lowman	Navy, RASO
6. Martin Offenhauer	Navy
7. Peter Stroganoff	Navy
8. Lee Saunders	Navy
9. Lynne Brown	RAB Community Co-chair , Communities for a Better Environment, CFC
10. Lani Asher	RAB member, Artist on the Shipyard
11. Barbara Bushnell	RAB member, ROSES
12. Maurice Campbell	RAB member, BDI, Community First Coalition, San Francisco Bay View
13. Charles Dacus, Jr.	RAB member, ROSES
14. Marie Harrison	RAB member, CBE, San Francisco Bay View
15. Mitsuyo Hasegawa	RAB member, JRM Associates
16. Lea Loizos	RAB member, ARC Ecology
17. Kevyn Lutton	RAB member, resident
18. J.R. Manuel	RAB member, JRM Associates, India Basin resident
19. Jesse Mason	RAB member, BVHP Community Advocates
20. James Morrison	RAB member, Environmental Technology
21. Georgia Oliva	RAB member, CBE, Shipyard Artist
22. Dorothy Peterson	RAB member, Shoreview Resident Association
23. Karen Pierce	RAB member, Bayview Advocates
24. Melita Rines	RAB member, India Basin Neighborhood Association
25. Ahimsa Sumchai	RAB member, Bayview-Hunter Point Health & Env. Resource Center.
26. Keith Tisdell	RAB member, resident
27. Raymond Tompkins	RAB member, Bayview-Hunters Point Coalition on the Environment
28. Caroline Washington	RAB member, Network for Elders
29. Chein Kao	RAB member, California Department of Toxic Substances
30. Amy Brownell	RAB member, San Francisco Department of Public Health
31. Julie Menack	RAB member, Regional Water Quality Control Board
32. Caroline Trombadore	RAB member, US EPA
33. Jacqueline Ann Lane	RAB member, US EPA
34. Peter Wilsey	San Francisco Department of Public Health
35. Don Capobres	San Francisco Redevelopment Agency
36. Ronald Keichline	Bechtel National, Inc.
37. Doug Bielskis	Tetra Tech EM Inc.
38. Carolyn Hunter	Tetra Tech EM Inc.
39. Arvind Acharya	Innovative Technical Solutions, Inc.
40. Joni Jorgensen-Risk	Innovative Technical Solutions, Inc.
41. Bert Bowers	New World Technology
42. Andrew Bozeman	Southeast Sector Community Development Corp.
43. Mike Burkard	Denbeste Transportation Inc.
44. Don Capobres	San Francisco Redevelopment Agency
45. Deborah Clark	Citizen
46. Francisco Da Costa	Environmental Justice Advocacy
47. Daryl DeLong	New World Environmental, Inc.
48. Albert Fong	Lalendeul
49. Nita Hines	Citizen's Advisory Committee
50. Bob Hocker	Lennar/BVHP

51. John Kaiser	SF Bay Regional Water Quality Control Board
52. Paula Kaneshiro	KRT Services
53. Harry Shin	Associated Builders
54. Ena Aguirre	Resident
55. Sy Allen	Renaissance Ex-Offender, CFC, CAC
56. Karen Linehan	Katz & Associates
57. David Terzian	The Point
58. Stefanie Yow	Office of Congresswoman Nancy Pelosi
59. Giacomo Ursino	Dago Mary's Restaurant

Hunters Point Shipyard
RAB Member Roll-Call Sheet

Current RAB Members	
Name	Affiliation
Community	
Brown, Lynne	Community Co-chair, Communities for a Better Env.
Asher, Lani	Artist on the Shipyard
Bushnell, Barbara	ROSES
Campbell, Maurice	New California Media
Dacus, Sr., Charles L.	ROSES, Resident
Franklin, Marie J.	Shoreview Environmental Justice Movement
Harrison, Marie	San Francisco Bayview Newspaper
Hasegawa, Mitsuyo	JRM & Associates
Jackson, Helen	All Hallows Gardens Residents' Association
Lea Loizos	ARC Ecology
Lutton, Kevyn	Resident
Manuel, J.R.	JRM & Associates
Mason, Jesse	BVHP Advocates
Morrison, James	Resident
Oliva, Georgia	Artist on the Shipyard
Palega, Sulu	BVHP Boys & Girls Club
Peterson, Dorothy	Shoreview Residents' Association
Pierce, Karen	BVHP Democratic Club
Rines, Melita	Resident
Rodriguez, Jim	Portola Place Homeowners' Assoc.
Sumchai, Ahimsa Porter	BVHP Health & Environmental Resource Center
Tisdell, Keith	Resident
Tompkins, Raymond	BVHP Coalition on the Environment
Washington, Caroline	Network for Elders
Wright, Leilani	JRM & Associates
Regulators	
Brownell, Amy	SF Dept. of Public Health
Kao, Chein	Cal. Dept. of Health Services
Lane, Jacqueline Ann	U.S. EPA Region IX
Forman, Keith	Navy Co-chair, SWDIV
Menack, Julie	Regional Water Quality Control Board
Trombadore, Claire	U.S. EPA Region IX (H-9-2)
Work, Michael	U.S. EPA Region IX

ATTACHMENT B

**27 MARCH 2003 - RAB MEETING
ACTION ITEMS**

Item No.	Action Item	Due Date	Person/Agency Committing to Action Item	Resolution Status
Carry-Over Items				
1.	None			
New Items				
1.	Include a line-item for "membership selection process" discussion on the April RAB Meeting agenda	April RAB	Ron Keichline	

Tape or Staple

Navy CLEAN 3, CTO-007
Community Relations Office
1230 Columbia Street, Suite 400
San Diego, CA 92101

Tape or Staple

HUNTERS POINT SHIPYARD
RESTORATION ADVISORY BOARD

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Meeting of April 24, 2003
Reporter's Transcript

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6 HUNTERS POINT SHIPYARD
7 RESTORATION ADVISORY BOARD
8
9
10 REPORTER'S TRANSCRIPT OF MEETING
11
12 April 24, 2003
13
14 Dago Mary's Restaurant
15 Hunters Point Shipyard, Building 916
16 Donahue Street at Hudson Avenue
17 San Francisco, California
18
19 Reported by Christine M. Niccoli, RPR, CSR No. 4569
20 -----
21 NICCOLI REPORTING
22 619 Pilgrim Drive
23 Foster City, CA 94404-1707
24 (650) 573-9339
25 CERTIFIED SHORTHAND REPORTERS SERVING THE BAY AREA

Page 1

1 PARTICIPANTS
2
3 FACILITATOR: MARSHA PENDERGRASS - Pendergrass &
4 Associates
5 CO-CHAIRS. KEITH FORMAN - United States Navy SWDIV
6 LYNNE BROWN - Communities for a Better
7 Environment, Community First Coalition
8
9
10 RAB MEMBERS
11
12 LANI ASHER - Communities for a Better Environment (CBE),
13 Community First Coalition (CFC)
14 AMY BROWNELL - San Francisco Department of Public Health
15 BARBARA BUSHNELL - R.O.S.E.S, resident
16 MARIE J. FRANKLIN - Shoreview Environmental, Incorporated
17 HELEN JACKSON - All Hallows Gardens Residents Association
18 JACQUELINE ANN LANE - U.S. Environmental Protection
19 Agency (EPA)
20 LEA LOIZOS - Arc Ecology
21 KEVYN D. LUTTON - Resident
22 J. R. MANUEL - JRM Associates, India Basin resident
23 JESSE MASON - Bayview-Hunters Point Community Advocates,
24 Community First Coalition (CFC)
25 JULIE MENACK - Regional Water Quality Control Board

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1 RAB MEMBERS [Cont.]:
2
3 JAMES MORRISON - Environmental Technology
4 GEORGIA OLIVA - Communities for a Better Environment
5 (CBE), CCA member
6 SULULAGI PALEGA - Hunters Point Boys & Girls Club,
7 Housing Authority, Samoan Community Development Center
8 KAREN G. PIERCE - Bayview Advocates, BVHP Democratic Club
9 MELITA RINES - India Basin Neighborhood Association
10 AHIMSA PORTER SUMCHAI - Bayview-Hunters Point Health &
11 Environmental Resource Center (HERC)
12 KEITH TISDELL - Hunters Point resident
13 CLAIRE TROMBADORE - U.S. Environmental Protection Agency
14 (EPA)
15 CAROLINE WASHINGTON - Southeast Community College Advisory
16 Board, Network for Elders
17 ---oOo---
18
19 OTHER ATTENDEES
20
21 ARVIND ACHARYA - Innovative Technical Solutions, Inc.
22 (I.T.S.I.)
23 SY ALLEN - Renaissance Ex-Offender, Citizen's Advisory
24 Committee (CAC), Community First Coalition (CFC)
25 LEAH ATWOOD - U.C.-Berkeley student

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1 OTHER ATTENDEES [Cont.]:
2
3 ESTHER BLANCHARD - R.O.S.E.S.
4 ANDREW L. BOZEMAN - Southeast Sector Community
5 Development Corp., Heaven's Glade
6 HUONG BUI - U.C.-Berkeley
7 DEBORAH CARROLL - The Point
8 BERT COMBS - Bay Storage
9 MICHAEL CONNER - New World Technology
10 FRANCISCO DA COSTA - Environmental Justice Advocacy
11 DOUGLAS DAVENPORT - Tetra Tech EM Inc.
12 DARYL DeLONG - New World Environmental Inc.
13 CARA DIENER - U.C.-Berkeley student
14 ERIN DONLEY - U.C.-Berkeley student
15 DENISE GRAB - U.C.-Berkeley
16 BOB HOCKER - Lennar/Bayview-Hunters Point Team
17 CAROLYN HUNTER - Tetra Tech EM Inc.
18 ESPANOLA JACKSON - Muwekma Ohlone
19 JONI JORGENSEN-RISK - Innovative Technical Solutions,
20 Inc. (I.T.S.I.)
21 RONALD WM. KEICHLIN - Innovative Technical Solutions,
22 Inc. (I.T.S.I.)
23 TOM LACEY - Bay Storage
24 LAURA L. LOWMAN - United States Navy Radiological Affairs
25 Support Office (RASO)

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<p>1 OTHER ATTENDEES [Cont]:</p> <p>2</p> <p>3 RICHARD LOWMAN - United States Navy Radiological Affairs</p> <p>4 Support Office (RASO)</p> <p>5 QUIJUAN MALOOF - Pendergrass & Associates</p> <p>6 MARTIN OFFENHAUER - United States Navy</p> <p>7 CHARLES H. PARDINI - Levine-Fricke for Lennar</p> <p>8 LEE H. SAUNDERS - United States Navy</p> <p>9 SUE STAKE - Bay Storage</p> <p>10 MICHAEL STRAUSS - Communities for a Beter Environment</p> <p>11 (CBE)</p> <p>12 PETER STROGANOFF - United States Navy</p> <p>13 GIACOMO URSINO - Dago Mary's</p> <p>14 PETER WILSEY - San Francisco Department of Public Health</p> <p>15 SAM WRIGHT - Department of Environment</p> <p>16 ---oOo---</p>	<p>1 Subcommittee.</p> <p>2 MS. MENACK: Julie Menack, Regional Water</p> <p>3 Quality Control Board.</p> <p>4 MR. MALOOF: Quijuan Maloof, Pendergrass &</p> <p>5 Associates.</p> <p>6 MS LOIZOS. Lea Loizos, Arc Ecology.</p> <p>7 MS. LUTTON: Kevyn Lutton, resident.</p> <p>8 MS. BUSHNELL: Barbara Bushnell, RAB member,</p> <p>9 ROSES.</p> <p>10 MR. MANUEL: J. R. Manuel, JRM Associates.</p> <p>11 MR. OFFENHAUER: Marty Offenhauer, Navy RPM.</p> <p>12 MR. FORMAN Keith Forman BRAC Environmental</p> <p>13 Coordinator and Navy Co-chair.</p> <p>14 MR. BROWN: Lynne Brown, resident, Co-chair.</p> <p>15 MS PENDERGRASS: Okay. And we are going to</p> <p>16 introduce the audience as well. I'd just like you all</p> <p>17 to be mindful that we do have a re- -- court reporter</p> <p>18 here that's actually taking verbatim minutes. So those</p> <p>19 of you who introduce yourselves from the audience, if</p> <p>20 you could do so loudly and very clearly so we can</p> <p>21 capture your name for the record.</p> <p>22 Start right over here.</p> <p>23 MS. BLANCHARD: Esther Blanchard, ROSES.</p> <p>24 THE REPORTER: I'm sorry. What?</p> <p>25 MS BLANCHARD: Esther Blanchard, ROSES.</p>
<p>1 SAN FRANCISCO, CALIFORNIA, THURSDAY, APRIL 24, 2003</p> <p>2 6:04 P.M.</p> <p>3 ---oOo---</p> <p>4 MS. PENDERGRASS: Welcome, everybody. If we</p> <p>5 could just get everybody a moment to get to their seats.</p> <p>6 All RAB members, please come forward to the table.</p> <p>7 Welcome to the Thursday, April 24th,</p> <p>8 Restoration Advisory Board meeting from the Hunters</p> <p>9 Point Shipyard.</p> <p>10 As always, we'll start with introductions. And</p> <p>11 start with -- let's start with the RAB members and start</p> <p>12 here, Mr. Tisdell.</p> <p>13 MR. TISDELL: Keith Tisdell, RAB leader of</p> <p>14 Membership & Bylaws.</p> <p>15 MS. OLIVA: Georgia Oliva, artist Shipyard --</p> <p>16 Shipyard artist and CBE member.</p> <p>17 MS. TROMBADORE: Claire Trombadore,</p> <p>18 Environmental Protection Agency.</p> <p>19 MR. KEICHLINE: Ronald Keichline, I.T S.I.,</p> <p>20 community relations.</p> <p>21 MS. JORGENSEN-RISK: Joni Jorgensen-Risk,</p> <p>22 I.T.S.I. community relations.</p> <p>23 MS H JACKSON: Helen Jackson from All</p> <p>24 Hallows.</p> <p>25 MS. SUMCHAI: Ahimsa Sumchai, Radiological</p>	<p>1 MR. ALLEN: Sy Allen, community advocate.</p> <p>2 THE REPORTER: I can't hear that. I'm sorry.</p> <p>3 MR. ALLEN: Sy Allen, community advocate.</p> <p>4 MR. DA COSTA: Francisco Da Costa,</p> <p>5 Environmental Justice Advocacy.</p> <p>6 MS. E. JACKSON: Espanola Jackson,</p> <p>7 Bayview-Hunters Point.</p> <p>8 MR BOZEMAN. Andrew Bozeman, Southeast Sector</p> <p>9 Community Development.</p> <p>10 MS. LANE: Jackie Lane, EPA, community</p> <p>11 involvement.</p> <p>12 MS. PENDERGRASS: Jackie Lane, EPA community.</p> <p>13 MS. DIENER: Cara Diener, U.C.-Berkeley</p> <p>14 student.</p> <p>15 THE REPORTER: I'm sorry. Car-?</p> <p>16 MS. PENDERGRASS: Karen [sic] Diener,</p> <p>17 U.C.-Berkeley student.</p> <p>18 MS. BUI: Huong Bui, U.C.-Berkeley.</p> <p>19 THE REPORTER: I can't hear that.</p> <p>20 MS. BUI: Huong Bui.</p> <p>21 MS PENDERGRASS: Hong? Spell the word,</p> <p>22 please.</p> <p>23 MS. BUI: H-u-o-n-g.</p> <p>24 THE REPORTER: The last name, please.</p> <p>25 MS PENDERGRASS. Last name, please.</p>

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HUNTERS POINT SHIPYARD
RESTORATION ADVISORY BOARD

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Meeting of April 24, 2003
Reporter's Transcript

1 MS. BUI: B-u-i.
2 MS. PENDERGRASS: B-u-i.
3 MS. GRAB: Denise Grab, U.C.-Berkeley student
4 MS PENDERGRASS. Denise Grab.
5 MS ATWOOD. Leah Atwood, U C.-Berkeley
6 student.
7 MS. DONLEY: Erin Donley, also U.C.-Berkeley
8 student.
9 MS. PENDERGRASS: Okay. We have a class over
10 here. Okay. Welcome.
11 MR. SAUNDERS: Lee -- Lee Saunders,
12 Environmental Public Affairs Officer with US Navy.
13 MR. HOCKER: Bob Hocker, engineer with the
14 Lennar team.
15 MR. PARDINI: Chuck Pardini, Levine-Fricke,
16 former U.C.-Berkeley student.
17 MS. PENDERGRASS: Gentleman to my left.
18 MR. WRIGHT: Sam Wright, Department of
19 Environment.
20 MR. ACHARYA: Arvind Acharya, I.T.S I.
21 MS. PENDERGRASS: Yes, standing with the paper
22 in the back. Sir? Can you introduce yourself?
23 MR. LACEY: Tom Lacey, Bay Storage.
24 MS. STAKE: Sue Stake, Bay Storage.
25 MS. PENDERGRASS: Sue?

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1 MS STAKE: Sue, yeah.
2 MR. COMBS: Bert Combs, Bay Storage.
3 THE REPORTER: I'm sorry. What?
4 MR. COMBS: Bert Combs, Bay Storage.
5 MS. PENDERGRASS: Burk -- Bert --
6 MR. COMBS: -- Combs.
7 MS. PENDERGRASS: Bert Combs, okay, Bay
8 Storage. Okay.
9 MS BROWNELL: Amy Brownell, San Francisco
10 Health Department.
11 MS. PENDERGRASS: To my right over here.
12 MR. STRAUSS: Michael Strauss, Communities for
13 a Better Environment.
14 THE REPORTER: I'm sorry. I didn't get the
15 first name.
16 MS. PENDERGRASS: Michael Strauss.
17 And you're with?
18 MR. STRAUSS: Communities for a Better
19 Environment.
20 MS PENDERGRASS: Communities for a Better
21 Environment.
22 Yes, sir.
23 MR. R. LOWMAN: Dick Lowman, US Navy RASO.
24 MS PENDERGRASS. Thank you.
25 MS L LOWMAN: Laurie Lowman, US Navy RASO

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1 MR. DeLONG: Daryl DeLong, New World
2 Technology.
3 MR. CONNER: Michael Conner, New World
4 Technology.
5 MR. STROGANOFF. Peter Stroganoff from the Navy
6 ROICC office.
7 MS. HUNTER: Carolyn Hunter, Tetra Tech.
8 MS. PENDERGRASS: Okay. We've had a couple of
9 additions to the RAB board.
10 Start here.
11 MR. MORRISON: James Morrison, citizen.
12 MS. PENDERGRASS: Okay.
13 MR. PALEGA: Sululagi Palega.
14 MS. PENDERGRASS: Anybody else who didn't
15 introduce themselves earlier?
16 MR. MANUEL: Yeah, her. Marie?
17 MS. LUTTON: It's your turn.
18 MR. MASON: Jesse Mason, RAB.
19 MS. PENDERGRASS: Lea, did you introduce
20 yourself?
21 MS. LOIZOS: Me?
22 MS. PENDERGRASS: Yes.
23 MS. LOIZOS: Yeah.
24 MS. PENDERGRASS: Okay. Great.
25 MR. MANUEL: These two didn't.

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1 MS. PENDERGRASS: I'm sorry.
2 MS. FRANKLIN: Hi. My name is Marie
3 J. Franklin, and I'm with Shoreview Environmental
4 Justice Incorporated --
5 MS. PENDERGRASS: Okay.
6 MS. FRANKLIN: -- RAB member.
7 MS. PENDERGRASS: All right.
8 MS. WASHINGTON: Caroline Washington.
9 MS. PENDERGRASS: All right. Very good. Thank
10 you very much.
11 All rightie. I'm glad to be back.
12 The -- Let's approve the agenda. Has
13 everybody had a chance to review the agenda from the
14 March 27th RAB meeting?
15 Are there any --? Any discussion about that
16 agenda before we move to accept it?
17 MR. BROWN. Motion to accept.
18 MS PENDERGRASS. Okay. All in favor of
19 accepting the minutes as printed and articulated here?
20 THE BOARD: Aye.
21 MS. PENDERGRASS: Second for that motion?
22 MS. BUSHNELL: I'll second.
23 MS. PENDERGRASS: Okay. Okay. All in favor?
24 THE BOARD: Aye.
25 MS. PENDERGRASS: Those opposed?

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1 Anybody abstained?
2 Okay. We've got minutes.
3 Let's just make sure that our action items are
4 taken care of from last meeting. And those were
5 "Carry-Over Items: "None"? I can't believe it. Okay.
6 MR. TISDELL: We take care of business when you
7 are not here.
8 MS PENDERGRASS. I guess. I'll go away more
9 often.
10 Okay. "Include a line-item for 'membership
11 selection process' discussion on the April RAB . . .
12 agenda." Okay. Is that on here?
13 Okay. Very fine. So that's taken care of and
14 that's off.
15 All right. We can move forward with
16 announcements from the Navy first.
17 MR. FORMAN: Okay. Couple of items that I
18 think will be of interest to you: There's two documents
19 in particular that are going to come out. The first one
20 is coming out in June, and that's going to be the draft
21 new Community Relations Plan that we have been working
22 on and that Caroline [sic] Hunter in particular has been
23 working very hard on.
24 And I'll be working with Lynne Brown, and we
25 will be having Community Relations Plan Subcommittee

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1 meetings in June, and what I'd like to do is give you
2 all a copy of that to read but also to go through it
3 with you section by section in a subcommittee meeting
4 and so that we can take this document that's going to be
5 a road map for us very seriously, and that will start in
6 June.
7 In July there's going to be a document that
8 comes out that I hope to have some meetings on. There's
9 going to be a public meeting on it, and then I hope to
10 bring it up before the subcommittee meetings and have a
11 general RAB presentation on it. And it's the five-year
12 review of our Parcel B Record of Decision.
13 That document will be of interest to you if
14 you -- If you've been on the RAB very long, you know
15 that Parcel B is fairly far along. And it has been,
16 believe it or not, five years since we have had a Record
17 of Decision. The Navy's required to report on the
18 progress we have made and what the status is, and that
19 will be coming up in July.
20 Lastly, from US EPA Jackie Lane -- I'm sorry.
21 MS. LANE: Sorry. Keith just wanted me to give
22 you an update on the Technical Assistance Grant.
23 I received two appli- -- applications, and I've
24 been working with both applicants to make their
25 applications a better product so that we can go ahead

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1 and evaluate it. I've given them comments and met with
2 them individually, and then they gave me a revised
3 application, and I gave them more comments.
4 So now they are in the process of revising
5 their application, and I hope to have an applicant ready
6 to go hopefully in July. So that's where it stands
7 right now.
8 MR. FORMAN: Great Thank you.
9 One last item I just -- I just want to repeat.
10 I know we have said this before, but so it's clear with
11 everybody, on the subcommittee meetings, if you want the
12 Navy present; if you want me, the project manager; if
13 you want anybody from the Navy present, let us know and
14 invite us.
15 Couple of different ways to do that. Most
16 people do it actually at -- here at the RAB during the
17 break where they just say so when they put down their
18 date. But if you want us there, invite us.
19 If there's a subcommittee meeting and you don't
20 invite us or nothing is said, then I need to assume that
21 maybe for a good reason you don't want the Navy there.
22 You want to talk about things and review things without
23 our presence.
24 But just let me know ahead of time so that I
25 know the meetings that you want us there for, and then

Page

1 we'll follow through.
2 Also, if you don't necessarily want me there or
3 Dave DeMars or the project manager, some meetings you
4 just want Ron Keichline to support you, he will do that.
5 Just let us know by contacting either myself, Dave, or
6 Ron himself; and then he'll be there to support your
7 subcommittee meeting for any administrative duties that
8 you might want him to help you with. We do offer that
9 at each meeting, but you need to let us know as soon as
10 you can when you need us.
11 MR BROWN: Okay. Well, I have just one
12 question. Last month over \$31 million was spent on
13 radiological remediation and also radiological survey.
14 I'd like to ask Ron -- I mean Daryl DeLong, not
15 tonight, to give me that information: Where was this
16 remediation done at? Daryl DeLong at New World
17 Technology and Foster Wheeler. That's all.
18 MS PENDERGRASS: So are you making a formal
19 request for a presentation, or is it just information to
20 you?
21 MR. FORMAN: You want detail?
22 MR. BROWN: Right.
23 MR FORMAN: He just wa- -- He wants a
24 detailed information --
25 MR. BROWN: Right

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1 MR. FORMAN: -- not a presentation.
2 MS. PENDERGRASS: So this is --?
3 MR. BROWN: Right.
4 MS. PENDERGRASS: Is this something that needs
5 to be put as an action item for follow-up?
6 MR. BROWN: Yes.
7 MS. PENDERGRASS: Okay. So that will be listed
8 as an action item to provide the Community Co-chair with
9 detailed information about --
10 MR. BROWN: -- the re- -- remediation
11 removal -- no -- the radiological remediation and also
12 the radiological survey. Where was this taken place at?
13 MS. PENDERGRASS: For --? Okay.
14 Okay. All right. Mr. Forman, are you
15 finished?
16 Mr. Brown, are you ready? That was all?
17 MR. BROWN: Yes.
18 MS. PENDERGRASS: That's all you have --
19 MR. BROWN: Yes.
20 MS. PENDERGRASS: -- for your announcements?
21 Okay. Well, the agenda was for announcement.
22 You have any other ones?
23 MR. BROWN: No, I don't. Thank you.
24 MS. BUSHNELL: Just one thing. Sorry
25 MS. PENDERGRASS: Yes, ma'am.

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1 MS. BUSHNELL: I just as a RAB member,
2 Mr. Dacus could not come tonight, and I will be his
3 alternate.
4 MS. PENDERGRASS: Mr. --
5 MS. BUSHNELL: -- Charles Dacus.
6 MR. ATTENDEE: Charles Dacus.
7 MS. PENDERGRASS: So -- But how can you be an
8 alternate -- an alternate or --?
9 MS. BUSHNELL: It's just that I will be
10 reporting to him . . .
11 MS. PENDERGRASS: Well, I'm just trying to make
12 sure we have a point of clarification in terms of the
13 bylaws and membership presence. So . . .
14 MR. TISDELL: You can do that.
15 MS. PENDERGRASS: You can do that?
16 MR. TISDELL: Yeah.
17 MS. PENDERGRASS: Fine. Make sure we got that.
18 Great. Perfect.
19 MS. BUSHNELL: Thank you.
20 MS. PENDERGRASS: Perfect.
21 All right. I guess at this point, we're going
22 to have a radiological program update, and at that point
23 we'll take a -- take a break and have our subcommittee
24 reports. So are we ready to do that?
25 MR. FORMAN: Yes.

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1 Here to introduce -- again, there's been a lot
2 going on on Hunters Point on the radiological program.
3 That's what Lynne Brown was alluding to, that there's
4 been lot of efforts on -- on basically two different
5 fronts.
6 The first front -- well, you're probably
7 familiar with -- a little bit with both of them if
8 you're a RAB member or a regular attender.
9 The first thing that Laurie Lowman from the
10 Radiological Affairs Support Office is going to talk
11 about is this Historical Radiological Assessment, known
12 as the HRA.
13 You know we put out a draft. Since we last
14 met, we put out responses to the comments on the draft
15 And Laurie and her team had been working on a lot of
16 research to make the draft final HRA a much-improved
17 product.
18 If you remember, she -- she's committed to
19 doing that, to making it accurate and making it
20 comprehensive. She is going to tell you some of the
21 things that she's finding and some of the directions her
22 research has gone in. Now, that's the first part of her
23 presentation.
24 The second part is a detailed listing for you
25 of what Daryl DeLong from New World Technology -- he's

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1 the contractor who goes out in the field and does
2 surveys and then does radiological actions, like
3 cleanup.
4 We're going to tell you everything across the
5 base that they are doing in that program. And you'll
6 see that it's a pretty comprehensive program, involves a
7 lot of different places on the base. That's going to be
8 the second part of her presentation.
9 What that means is: Our presentation --
10 Laurie's, anyway -- is going to be a little longer than
11 we scheduled in the agenda, and I have coordinated that
12 with Claire Trombadore and U.S. EPA, and that will mean
13 that her presentation takes up quite a bit of time. And
14 Claire's announcement and presentation of the scanner
15 van report will be a much smaller component of that
16 tonight.
17 And if that's okay with everybody, then we'll
18 proceed along and let Laurie start telling us about
19 what's going on with the radiological program update at
20 Hunters Point.
21 Laurie?
22 MS. L. LOWMAN. Stand over there so that I can
23 be close to the screen, and now I'm over here so that
24 I'm close to the microphone. So kind of moving around
25 here.

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1 And the first part I don't need any help with
2 buildings. But Marty, can you help me when I do the
3 update and show them where the bases are on the maps?
4 And I'm sorry for kind of talking in front of you.
5 MR. OFFENHAUER: [Unintelligible query.]
6 MS. LOWMAN: Not right this second. No
7 Yes Is that better? Can everybody hear?
8 Okay. Okay.
9 I'm Laurie Lowman, director of Navy's Low Level
10 Radioactive Waste Program. We are the ones in charge of
11 doing all the cleanups with all the Navy sites, and this
12 is the Hunters Point Shipyard HRA update.
13 I will be here this month. Next month I won't
14 be here. There was -- be someone else from RASO, which
15 is the Radiological Affairs Support Office. I'm going
16 to be kind of crunch time for the HRA working with my
17 team back in Virginia. So someone else -- I'm not sure
18 who it is yet -- will be coming out here to do the
19 update for me.
20 Go ahead.
21 Let's start with the archive reviews. All of
22 our archi- -- archive reviews are complete. Material
23 received: We have received all the material from every
24 archive location except for Lawrence Livermore National
25 Labs. We could not make those copies ourselves. They

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1 have to make them for us and forward them to us. So
2 we're kind of at their mercy. Hopefully, we will -- we
3 will be getting those soon.
4 There is -- Some records we are having a hard
5 time seeing. They have been checked out by Department
6 of Energy and the Defense Threat Reduction Agency. It
7 has to do with studies on the atomic weapons, in
8 particular OPERATION CROSSROADS. We're working on
9 getting those records and getting to see those.
10 There's classified records at NARA-College
11 Park, College Park, Maryland. NARA is National Archives
12 & Records Administration. Those mainly have to do with
13 OPERATION CROSSROADS. We're asking for those to be
14 declassified. Some of those we can have declassified.
15 Some of them we can't.
16 Unfortunately, NARA-College Park has not
17 entered the computer age, and all of their inventories
18 are still handwritten. So we're kind of having a -- I
19 know, it's amazing. We're kind of having a hard time
20 getting all that coordinated. But hopefully, we will
21 have that before the HRA comes out.
22 Problems we have encountered are records
23 obviously checked out by the DOE or DTRA And at Navy
24 commands that receive NRDL reports and NRDL records,
25 because NRDL closed 1969, they have passed the retention

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1 time frame, and they have gone ahead and destroyed those
2 records. So a lot of them are just missing. But we're
3 doing the best we can to try to fill in those gaps.
4 What we are doing with the records is entering
5 them into a database that was established at RASO. I
6 had an update this morning. We actually have -- We
7 don't have 1,850. We now have 2100 documents that have
8 been obtained and scanned into PDF files. They have
9 been -- They are being reviewed.
10 And to date, as of today, we have done almost
11 1600 of the 2100 records. And by that I mean, when we
12 first get them, we scan them into the computer. We go
13 through and enter in the preliminary data. And I have a
14 team of reviewers that do an in-depth review and add all
15 the notes that we would need to do the HRA itself.
16 And so 1600 of those have had a detailed review
17 done with them. These documents are anywhere from 1
18 page to 300 pages. So some of them are very, very long
19 and take a long time to review.
20 Additional records, we have approximately --
21 well, I think we have received most of those first 350
22 this week. We have 750 electronic maps of Hunters Point
23 showing building diagrams to overall maps of the entire
24 site, diagrams of the dry docks, all types of maps. And
25 then there's 300 documents from College Park that are

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1 still being entered. We will have about 30 --
2 3,250 documents when we're through.
3 All the RASO historical documents, we had our
4 own archive there plus the records from Dr. C. Sharp
5 Cook. We have screened all those, and 90 percent of
6 those have been entered into the database. We are doing
7 really well with those.
8 Interview status. This is something
9 everybody's really interested in. We had 206 responses
10 to the advertisement. A hundred and sixty-one of those
11 were qualified for telephone screening.
12 And the ones that did not qualify are the ones
13 that wanted a job, or they wanted to be a court reporter
14 and record the interviews, or they wanted -- there
15 were -- there were all types of things that people
16 called in and provided information on that had nothing
17 to do with radiological operations at Hunters Point.
18 We have contacted 144 of those 161 tele- --
19 people selected for telephone screening. We faxed one
20 person, and we have not heard back from them. Three of
21 the phone numbers were incorrect. Totally have no
22 way -- other way of getting in touch with them. And
23 13 people received e-mails or voice mails, and they have
24 not responded yet.
25 We have identified to date 19 additional

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1 people, and that's in addition to the 206 through the
2 screening process. In other words, you call somebody to
3 do the telephone screening, and they say, "Hey, I know
4 so-and-so. They used to work there too," or "they
5 worked for NRDL"; and they are giving us addresses and
6 phone numbers.

7 Last month we asked -- I was asked to provide
8 some information on the types of jobs and to do a map
9 with the location of the respondents to the
10 advertisement; and I got percentages, but I don't have
11 it on a map yet.

12 Sixty percent of the respondents were Shipyard
13 employees. And that can be either the trades,
14 electricians, riggers, welders, a number of the
15 apprentice programs that were done during World War II
16 or right after World War II by Hunters Point Shipyard;
17 and then there's folks from Triple A, and then there
18 were radiological control technicians from Mare Island
19 Naval Shipyard.

20 Fifteen percent worked for the Navy
21 Radiological Defense Laboratory in some capacity,
22 everything from an animal keeper to the -- one of the
23 top directors, biologists, chemists, all different types
24 of personnel.

25 Twelve percent were active duty. All were Navy
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1 except for one Air Force captain.

2 And 8 percent are family members. They're
3 concerned. They have a husband or a father or a
4 brother, sister, someone who worked for NRDL or the
5 Shipyard; and most of these their family member has
6 died, and they are concerned that whether or not that
7 was because of radiological operations they may have
8 been involved in.

9 And 5 percent of the respondents were in an
10 administrative capacity. They might have been a
11 secretary, a librarian, public relations, something like
12 that.

13 By area 40 percent were in the San Francisco
14 area, 25 percent in the Sacramento area. We have
15 15 percent of the respondents who don't want to give us
16 an address. So I can't do anything about that. They
17 just give a telephone number. They don't want me to
18 know where they live. That narrows down the
19 face-to-face interview possibilities.

20 Ten percent from other California locations:
21 Fresno, Bakersfield, Long Beach, San Diego. Most of
22 them in the south. One's from Mount Shasta, a little
23 farther north.

24 Ten percent outside of California: Two outside
25 of the continental United States, one in Hawaii and one
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1 British Columbia; and then, of course, Idaho, Oregon,
2 Georgia, North Carolina, Virginia -- we've got multiples
3 in Virginia. We are doing face-to-face interviews with
4 two of those this weekend -- Maryland, New Mexico --
5 Mr. Olson responded. I know a number of you have asked
6 me about him -- Arkansas and Nevada.

7 Problems with the interviews is: It's taking
8 us multiple attempts to reach people. You leave four or
9 five voice mails before you get a call back. Multiple
10 e-mails. It is very time consuming.

11 And then many of them are older. So when we do
12 get in touch with them, we end up talking through a
13 spouse or a daughter or son to actually get the
14 information from the former employee

15 Go ahead.

16 Face-to-face interviews: We have selected
17 26 people to do face-to-face interviews with, people
18 that we thought really had significant information about
19 the Shipyard, perhaps had documentation of operations at
20 the Shipyard and really had a good memory of what went
21 on there.

22 We got together. There was myself and my
23 husband, Dick Lowman, and another member of the team
24 that had done the screenings. We all got together and
25 reviewed all the screening information, and we chose the
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1 26 respondents. They represent all types of employees,
2 from Shipyard workers to NRDL scientists to the public
3 relations end of it.

4 And Dick started those face-to-face interviews
5 this week on the 22nd of April. And that effort will
6 continue through mid May, because some of the people are
7 on vacation, different things. It's going to take us
8 that long to get in touch with all of them.

9 We are doing some of the folks that are out of
10 California. Mr. Olson is one scheduled for a
11 face-to-face interview. So there will be a lot of
12 traveling to get everybody in.

13 HRA timeline: We are continuing to meet all
14 our goals, which is a really good thing. We had one
15 kind of setback at the end of March, but we have
16 recovered.

17 Our goals for April are to complete an in-depth
18 record reviews in which we're very much on target with
19 that. Enter document summaries, on target with that;
20 and sort documents into subject areas and time periods
21 using the database from which we will identify the
22 reference documents for the HRA.

23 May our team drafts the HRA, and we incorporate
24 all the responses to comments in the draft HRA, the
25 response to comments from the previous draft for the
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<p>1 final draft.</p> <p>2 June is an internal Navy review time. So all</p> <p>3 the Navy uppity ups can look at it and say I spelled</p> <p>4 this wrong or put too many spaces in somewhere, or they</p> <p>5 don't like what I wrote.</p> <p>6 And -- and then in July I get to incorporate</p> <p>7 all those comments, make any necessary changement --</p> <p>8 changes.</p> <p>9 And August is our distribution for public</p> <p>10 comment, regulatory and public comment in August.</p> <p>11 We have some -- Every month I try to bring</p> <p>12 some significant new information that we have discovered</p> <p>13 as a result of doing the research for the HRA. This</p> <p>14 month we are going to talk about OPERATION CROSSROADS.</p> <p>15 We knew OPERATION CROSSROADS had been a</p> <p>16 significant test out at Bikini Atoll in 1946. But we</p> <p>17 did not realize the impact it had on Hunters Point and</p> <p>18 still -- until we started doing all the research. It</p> <p>19 was the test of two atomic weapons.</p> <p>20 And the -- and the first shot was Shot Able.</p> <p>21 It was an air burst over the water, but it was still up</p> <p>22 in the air.</p> <p>23 Shot Baker was the second one, and that was</p> <p>24 suspended about 60 feet below water from a ship, and it</p> <p>25 was totally a surprise to the Navy. It was definitely a</p> <p>Page 29</p>	<p>1 had no idea what it was going to do, and they were very</p> <p>2 surprised. Some records indicate the weapon had a --</p> <p>3 was ten times the yield they anticipated. So when y</p> <p>4 see the films of it, it is totally amazing.</p> <p>5 The initial decontamination efforts on the</p> <p>6 ships were conducted at Bikini Atoll from where their</p> <p>7 detonation was; and then as they got them to some</p> <p>8 levels, they moved the ships to Kwajalein and did</p> <p>9 further decontamination there</p> <p>10 But Navy had a problem. This was right after</p> <p>11 World War II and right before the Korean conflict. They</p> <p>12 very much needed to have every available ship</p> <p>13 operational and back out on the water and ready for --</p> <p>14 in case of war. So they returned the ships to home, and</p> <p>15 they made every effort to ensure that the ships became</p> <p>16 operational.</p> <p>17 Hunters Point was chosen as the main return</p> <p>18 point because of its -- the level of expertise that was</p> <p>19 available around here. Not only was Joint Task Force</p> <p>20 One stationed here and headquartered here, but they had</p> <p>21 the University of California expertise that had worked</p> <p>22 with the Manhattan Project on the development of the --</p> <p>23 of the atomic bombs. So that's -- that was why.</p> <p>24 They also had the dry docks, the piers. They</p> <p>25 had the facilities to support every type of ship that</p> <p>Page</p>
<p>1 lot more strength to that weapon than they ever</p> <p>2 anticipated.</p> <p>3 They were the fourth and fifth atomic weapons</p> <p>4 ever detonated. The first was Trinity. That is the</p> <p>5 first test done before the bombs at Hiroshima and</p> <p>6 Nagasaki, and then Shot Able -- the Shot Able and Shot</p> <p>7 Baker were the fourth and fifth after that.</p> <p>8 Navy was a major participant. And matter of</p> <p>9 fact, they had -- joint task force pretty much ran the</p> <p>10 entire show.</p> <p>11 Next slide.</p> <p>12 A hundred and eighty Navy vessels participated</p> <p>13 as target and support ships in the operation. Shot</p> <p>14 Baker resulted -- because of the underwater burst, it</p> <p>15 resulted in all ships receiving some degree of</p> <p>16 contamination. The target ships received it from the</p> <p>17 actual shot. A lot of the support ships received it</p> <p>18 when they went into Bikini Lagoon to check on the target</p> <p>19 ships and check on the levels of contamination.</p> <p>20 There is only one ship that I have found that</p> <p>21 did not require decontamination, and that was because</p> <p>22 that one was a support ship and it did not go into</p> <p>23 Bikini Lagoon.</p> <p>24 This was an unanticipated problem for Navy.</p> <p>25 This was a brand-new science, a brand-new weapon. They</p> <p>Page 30</p>	<p>1 was over there.</p> <p>2 Go ahead.</p> <p>3 The ships returned to San Francisco Naval</p> <p>4 Shipyard, as it was called then -- it wasn't called</p> <p>5 Hunters Point Shipyard -- via Pearl Harbor Naval</p> <p>6 Shipyard. That's where they went first. There was very</p> <p>7 little decontamination done at Pearl Harbor, but they</p> <p>8 didn't -- they kind of staged them and had them go there</p> <p>9 first before they brought them into Hunters Point.</p> <p>10 There was 61 support ships and 18 target ships</p> <p>11 that came to Hunters Point. There were a number of</p> <p>12 ships that were sunk out at Bikini or out at Kwajalein</p> <p>13 because they could not decontaminate them.</p> <p>14 The support ships were far less contaminated,</p> <p>15 and that was obviously because they were not in the</p> <p>16 detonation zone. They were outside of it. And their</p> <p>17 contamination resulted when they went in to check on the</p> <p>18 actual target ships.</p> <p>19 The 18 target ships were more heavily</p> <p>20 contaminated, and they were the last ones to be</p> <p>21 transported. The 61 support ships came in first because</p> <p>22 they could clean them, and they could make them</p> <p>23 operational and get them back fully manned and ready to</p> <p>24 go</p> <p>25 Eighteen target ships returned to Hunters</p> <p>Page 32</p>

1 Point. Twelve came in under their own power, and six
2 were towed. The six that were towed were the
3 Independence, the Gasconade, the Crittenden, the Hughes,
4 the Skate and the Skip Jack.

5 And there's a big significance between those
6 that came in under their own power and those that were
7 towed. The towed target ships were more heavily
8 contaminated than the actual ones that came in under
9 their own power because as they came in from under their
10 own power, their systems, their ventilation systems,
11 everything was operating and allowed them to kind of be
12 semi cleaned in the process.

13 When -- okay. When they are towing a ship in,
14 then none of the systems were running. It was towed in
15 by -- most of them by an ocean-going tug, and it -- and
16 it -- therefore, none of their systems were operational.

17 The Hughes came in. It was a destroyer. It
18 was monitored here at Hunters Point and then sent to
19 Puget Sound Naval Shipyard for decontamination.

20 The Skate and the Skip Jack were two
21 submarines. They came in here at Hunters Point. They
22 did experiments on the fission products that were on the
23 two submarines for some time before they were sent to
24 Mare Island for decontamination.

25 Okay. The Independence, everybody's heard of

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1 the Independence. She was -- she was very heavily
2 damaged, an aircraft carrier. They kept her at Hunters
3 Point for quite a while. They did experiments on her.
4 They did very little decontamination of her because she
5 was so heavily damaged. Eventually she was filled with
6 waste, radioactive waste, and she was sunk at sea.

7 The Gasconade and the Crittenden were two
8 attack transport ships. They were two attack transport
9 ships that came in. They also had various experiments
10 done on them. They did do attempts at decontamination.
11 They were not successful. And eventually they were sunk
12 at sea.

13 These three ships were the unique ones to
14 Hunters Point, the Independence, Gasconade, and
15 Crittenden, because they did not come here. They -- and
16 leave. They were -- They came here. They were
17 monitored. They did experiments on them, and then they
18 did -- any decontamination efforts that they did make
19 they tried to do here.

20 They had unique problems that they had never
21 seen before on any other ships. And part of the reason
22 the rad lab was established was to determine -- at the
23 Shipyard, at any rate, was to determine how to handle
24 contamination on vessels as a result of an atomic
25 weapon. That was because there were other countries

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1 that had atomic weapons, and they were trying to protect
2 our forces when they were at sea as well.

3 After the Baker Shot, things were never done
4 the same way. When they did the Baker Shot, they put
5 the ship out there. They were completely open. They
6 did not close them up. Baker Shot, there was a huge
7 burst of water that came up when the weapon detonated;
8 and in addition to that, there were 100-foot waves that
9 were generated by them -- by the detonation of the
10 weapons.

11 So there were about 13 of those waves that
12 washed over the target ships. So it definitely was
13 something they had never seen before and probably
14 haven't seen since.

15 They took special precautions for the shipyard
16 workers. They were very, very careful about how they
17 allowed them on the ships. They set up special
18 decontamination quarters for the shipyard workers who
19 would come in to the clean side of the building, don
20 their clothes to go down and work on the ships, come
21 back.

22 They had to fully shower. They had to do
23 everything before they could smoke or eat or leave the
24 base or do anything. Very special precautions were
25 taken.

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1 Towed target problems: There were extensive
2 contamination throughout the ship. Many components were
3 moved from the ships, required disposal of, as
4 radioactive waste or extensive decontamination before
5 reuse.

6 There were items that were taken from the ships
7 and were used. For instance, the power plants on the
8 Independence were taken off and actually sent to Point
9 Mugu, California. There's a naval air station down
10 there that was doing missile shots. They were actually
11 firing missiles, and they used the power plants to
12 support that function. So there were items taken off of
13 these towed targets, and they were reused.

14 Contamination presented a problem on the
15 target -- the towed targets that were not the same as
16 the other target ships and the other support ships, and
17 so they had to be treated very differently.

18 They did special experiments to investigate the
19 treatment and disposal options because they weren't sure
20 what to do with this.

21 When they first did the decon at Bikini even,
22 they were using coffee grounds. They were using corn
23 They were using rice. They were using acid. They were
24 using anything 'cause they had no idea how to decon
25 them. And the metals, they were a whole lot better.

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<p>1 But we got to remember, some of these had wooden decks, 2 and they just couldn't get them deconned. So there were 3 problems that nobody ever anticipated having. 4 Go ahead. 5 Our current investigations that we are doing 6 now, to ki -- to kind of get more information on the 7 CROSSROADS ships, we have requested additional records 8 from DOE and DTRA, Defense Threat Reduction Agency; and 9 we have requested declassification of some of the 10 records on CROSSROADS so we can put more information on 11 these ships in the HRA. 12 And in addition, the investigations we're doing 13 on the base itself in the Phase 5 investigations being 14 done by New World, we are adding some additional areas 15 as a result of knowing where the CROSSROADS ships came 16 in, where they were experimented on, and where 17 decontamination efforts were conducted. 18 And in addition, the investigations we're doing 19 right now include the isotopes that would have resulted 20 from the detonation, including the fission products. So 21 as we are looking and doing these investigations right 22 now, the -- we're already looking for the isotopes we 23 would look for as a result of having the ships here. 24 Questions? 25 MS. OLIVA: Okay. Laurie, thank you for being</p> <p>Page 37</p>	<p>1 MS OLIVA: Okay. The next question I have is: 2 Where is "sunk in the ocean," sunk in the ocean for 3 that? 4 MS L. LOWMAN: Where the Independence . . . ? 5 MS. OLIVA: Yeah. Where is that? 6 MS. L. LOWMAN. That is at Farallones. 7 MS. OLIVA: Thank you. 8 MS L. LOWMAN: Mm-hmm. 9 Okay. 10 MS. ASHER: Hi. Could you please tell us what 11 the additional areas are that you're going to be 12 investigating and what the names are of the isotopes 13 that you are looking for. 14 MS. L. LOWMAN: Okay. Some of the additional 15 areas we are looking at are the submarine piers that are 16 in Parcel B. There's other piers down towards Dry 17 Dock 4 and the Gun Mole pier. There's a building near 18 the Gun Mole pier. There's various areas that we are 19 still collecting all the information and trying to make 20 a list of all the buildings that were affected. There's 21 some of them. 22 The weapon -- Baker Shot was a plut- -- Both 23 shots were plutonium weapons. Therefore, we have 24 unspent plutonium that would be a residual on the ships, 25 and we also have fission products. Of the fission</p> <p>Page</p>
<p>1 so honest about all of this. But I have two questions. 2 The experiments that were done while the ships 3 were here, could you tell me, was any sandblasting 4 included in that? 5 MS. L. LOWMAN: Sandblasting was a 6 decontamination effort done on any ship that required 7 decontamination, whether it was a towed target or not. 8 The sandblasting was done mainly on the hulls 9 of the ship. There was a tremendous uptake of the 10 radioactive materials into the barnacles and the sea 11 growth on the hulls of the ship. So they would put them 12 in dry docks and sandblast them to try to get that off. 13 Most of the time they contained the sandblast, 14 but not always. That is something we are investigating. 15 We are trying to find out where the sandblast grit did 16 go. 17 MS. OLIVA: All right. And the dry docks that 18 were used . . . ? 19 MS. L. LOWMAN: The dry docks that were used, 20 we have surveyed those. We have been taking sediment 21 samples from the bottom of those and looking for same 22 isotopes we would look for. 23 MS. OLIVA: Which ones are they? 24 MS. L. LOWMAN: The dry docks? They were Dry 25 Dock 6, Dry Dock 3, and Dry Dock 4.</p> <p>Page 38</p>	<p>1 products today, you would be looking for cesium-137 and 2 strontium-90. 3 MS. ASHER: Thank you. 4 MS. OLIVA: How about U-238? 5 MS L. LOWMAN: They didn't use uranium in the 6 weapons. 7 MR. MASON: One question was already asked -- 8 answered about where the ship was sunk. 9 But another question I want to ask you about, 10 you know, some of the people that you talked to, I can 11 remember as a kid growing up that there were families 12 living in the Shipyard in the hoops down there. 13 Did you talk to anyone, other than Tom Olson, 14 that lived in the Shipyard? 15 MS. L. LOWMAN: We have not had anyone respond 16 to the advertisement that lived in the Shipyard. We are 17 trying to get a hold of anybody that responds, and we 18 are trying to get a hold of any additional names we get 19 from respondents. But if I don't have the people 20 responding, that makes a problem for us to contact them. 21 If anyone knows of a family or someone who's 22 still alive, we -- you know, pretty soon I'm going to 23 have to conclude these interviews to draft the HRA. E 24 the 1-800 number is still working. It's 1-800 -- 25 Daryl, please help me. No, that's not it.</p> <p>Page 40</p>

1 MR. R. LOWMAN: It's not in my head.
2 MS. L. LOWMAN: It's really --
3 MR. R. LOWMAN: 1-800-433- -- I'll get it for
4 you after the break.
5 MS. L. LOWMAN: Okay. Thank you.
6 Yeah, 'cause I don't -- I don't have the exact
7 number.
8 MR. MASON: The majority of people that lived
9 in the Shipyard were either, you know, servicemen and
10 their families.
11 MS. L. LOWMAN: Right. The service people we
12 have talked -- I have talked with so far did not live in
13 the Shipyard.
14 MS. OLIVA: Do you have records of those
15 servicemen?
16 MS. PENDERGRASS: We have a question over here,
17 please. Thank you.
18 We will come back to you, though.
19 MS. LUTTON. Hi.
20 MS. L. LOWMAN: Hi.
21 MS. LUTTON: I wanted to ask about the six
22 ships that were towed because of this unexpectedly large
23 shot. There must have been sailors or something on
24 there.
25 MS. L. LOWMAN: Not on the towed ships.

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1 MS. LUTTON: But when it -- when they were hit,
2 were they just abandoned? They abandoned the six ships
3 and then blew them up?
4 MS. L. LOWMAN: What they did, none -- There
5 were no people on the target ships. They did not --
6 When the ta- -- When the ships -- when the ships were
7 targets, when they were out at the detonation area, the
8 test area, and the ships were targets, they evacuated
9 the crews before they did the detonation and put them on
10 another ship.
11 Then, depending on the radiation levels that
12 were on the ship, after the detonation, some of the
13 ships got boarded again.
14 The towed targets could not be boarded and were
15 not enough -- operational enough in -- to be -- come
16 back under their own power and had to be towed.
17 MS. LUTTON: But they were still --?
18 MS. L. LOWMAN: Mm-hmm, they were floating.
19 Amazing thing is, some even sunk at the test, and they
20 managed to get them back up, and they came back in under
21 their own power. So I -- I'm not entirely sure what
22 kind of miracles the Navy did out there, but they did
23 some.
24 MS. PENDERGRASS: Mr. Tisdell and then --
25 MR. MANUEL: I got my hand up here a long time.

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1 MS. PENDERGRASS: I'm sorry.
2 MR. TISDELL: Okay. I have two questions.
3 One, if a ship is out in the ocean and nobody aboard it
4 and you going to tow it, you have to board it to tow it.
5 That's one.
6 And the other is: Melita Rines asked about
7 Building D-23, and you said that -- that because of the
8 handouts only reflected the buildings that were used by
9 NRDL, what was those other warehouses up there used for?
10 MS. L. LOWMAN: Okay. To my knowledge, all the
11 records that I have read so far about the ships that
12 came back from --
13 MR. TISDELL: We talking --? Okay, okay.
14 MS. L. LOWMAN: -- CROSSROADS. Let me do your
15 first part first, okay. There were no people on the
16 towed targets. There were people on the ships doing the
17 towing, and they were on a very short tow. But I have
18 not had any records personnel on those targets. I could
19 be wrong, and I'm not through doing research, but I'm
20 telling you what I found so far.
21 As far as Buildings D-19, 20, and 21 were used
22 for approximately a year by NRDL D-22 was used by the
23 Shipyard supply department, and D-23 was used by the
24 Public Works center supply department as a storehouse.
25 So they were used by Shipyard offices. Had nothing to

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1 do with NRDL.
2 MR. TISDELL: But the storage area.
3 MS. L. LOWMAN: I would assume for the Shipyard
4 supply department, it was whatever supplies they needed
5 to store there for Shipyard operations.
6 Public Works centers are responsible for
7 maintenance of buildings and maintenance of properties.
8 So I would think there were supplies like that, but I
9 don't have exact numbers of what was in the building.
10 MS. PENDERGRASS: Miss Oliva, you were next;
11 but since you asked a question, can we have one from
12 someone else?
13 MR. MANUEL: A coup- -- Yeah, a couple of
14 things. Number one, you don't have to board a ship to
15 tow it. Well, you know, we own -- a couple of the ships
16 that would have been used to tow the vessel to ATS we
17 own. So you don't have to get on to tow them. You
18 use -- You anchor them. You use a buoy to keep the
19 lines up afloat. You don't have to get on them, number
20 one.
21 Number two, in terms of the -- I wanted to know
22 about the 12 other ships that weren't mentioned, and
23 have you run across anything regarding the Mactobi and
24 Quapaw?
25 One more thing. You can get all the

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1 information from the NAFT. There's an association of
2 retired naval personnel and their families and everybody
3 else, and they go back three, four generations with
4 records and whatever of what their grandfathers or
5 fathers or whoever did. Just in N.-- NAFTS.com, and --
6 MS. L. LOWMAN: NFTS?
7 MR. MANUEL: NAFTS.com. Put an inquiry in
8 there that let them know that you want to chronicle the
9 record. They -- they actually do that on the Web site.
10 MS. L. LOWMAN: Great.
11 MR. MANUEL: So if you inquire, you'll probably
12 being overwhelmed, because there's a lot of people on
13 there that remember when. So . . .
14 MS. PENDERGRASS: N as in Nellie, A as in
15 apple, S as in Sam?
16 MR. MANUEL: N-A-F--
17 MS. PENDERGRASS: S as in Sam?
18 MR. MANUEL: -- Frank, -T-S dot com.
19 MS. PENDERGRASS: Okay. T as in Tom, F as
20 in --
21 MR. MANUEL: Yeah.
22 MS. PENDERGRASS: -- Frank.
23 MR. MANUEL: Yeah. But the --
24 MS. L. LOWMAN: He's writing that down for me.
25 MR. MANUEL: Okay. Well, if you have any

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1 problems, just let us know.
2 MS. L. LOWMAN: Okay.
3 MR. MANUEL: We are involved in a lot of
4 naval -- the ex-Navy people for our own vessels.
5 But I would like to know about the 12 and if
6 any of the tow vessels, the ATS or the -- the auxiliary
7 tug fleets that were towed, were any of those
8 contaminated and what the 12 other vessels were.
9 MS. L. LOWMAN: Okay. I have the ti-- the
10 names of the 12 other vessels, but I don't have them up
11 on the slides. But I have a listing with me.
12 As far as the vessels that were the tow ships,
13 there were various ones that towed them in. They were
14 probably in the same level as a support ship, because
15 that's what they were. They did receive some
16 decontamination, but they went on to be of service.
17 I'm trying to find the final disposition of all
18 the ships, whether they're targets or support ships
19 But I don't have all that information yet.
20 MS. ATTENDEE: Are there any --?
21 THE REPORTER: Wait a minute I don't know --
22 MS. PENDERGRASS: Go back, and then we'll go
23 back to [unintelligible].
24 MS. PIERCE: I want to get back to the
25 personnel that were involved in the OPERATION

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1 CROSSROADS And does the Navy have any records of their
2 health status? We know there were those on the target
3 ships. But I'm talking about all of the other ships
4 that were involved.
5 MS. L. LOWMAN: There's an association called
6 the Atomic Veterans that is -- has multiple Web sites,
7 and they were involved in the weapons testing. That's
8 one place to go and get information, and I have gotten a
9 lot of information off of their Web sites, and they talk
10 about the various ships.
11 The Defense Threat Reduction Agency is a
12 multi-service organization. And one of their -- One of
13 the reasons I'm having trouble finding the records is:
14 They have hold so many because they are working with the
15 atomic veterans and their families. So there is work
16 being done, not by me, but there's work being done.
17 MS. PENDERGRASS: We need to give the -- our
18 court stenographer a break, as she's -- and so can we
19 take a break for ten minutes and come back, finish up
20 with questions and then move forward?
21 MS. L. LOWMAN: Okay.
22 MR. ATTENDEE: Sure.
23 (Recess 6:53 p.m. to 7:05 p.m.)
24 MS. PENDERGRASS: Can we call the meeting back
25 to order, please?

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1 Those of you who want to go ahead and ask a few
2 more questions, we have about five, six, seven minutes
3 for wrapping up these questions before we have
4 announcement and then the second part of the
5 presentation.
6 So I think Ms. Oliva had a question. Miss
7 Asher had a question, and Miss Lutton had a question and
8 Miss -- and Dr. Sumchai. Okay? So if we can -- if we
9 can get those four questions in.
10 And then we had a question from the audience
11 here, Mr. Da Costa and --
12 I got yours. Okay.
13 So again, it will be Ms. Oliva, Miss Asher,
14 Miss Lutton, Dr. Sumchai, and then Mr. Da Costa; and
15 then that will end our questions for tonight. You can
16 add questions later after the second part of the
17 presentation. Okay?
18 MS. L. LOWMAN: Do they know the order?
19 MS. PENDERGRASS: Yes, they do. They do.
20 MS. L. LOWMAN: Oh, okay. I don't.
21 MS. PENDERGRASS: Okay.
22 MS. OLIVA: Could I have it back for a second?
23 I can't get up. Okay. Jesse had asked --
24 MR. ATTENDEE: Turn the switch on.
25 MS. OLIVA: Jesse had asked a question about

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1 servicemen. Was it Jesse or J. L. [sic]? Servicemen
2 that --
3 THE REPORTER: I'm sorry. I still can't hear
4 you
5 MS. OLIVA: Jesse Mason and, I think, J. L. had
6 mentioned -- J. R. -- about the servicemen that lived
7 here on the base. And I would think that because they
8 lived here on the base and they had numbers, that the
9 Navy would have a record of these people that resided on
10 here. They were actual servicemen. My one question.
11 Second one is: In the experiments of the
12 no-people ships out there, a science person, I would
13 think, would not only be interested in metal and wood,
14 but rabbits and mice and other things. Were any of
15 those animal experiments on any of those ships?
16 MS. L. LOWMAN: As far as the active-duty
17 personnel that lived here on the base, we'll look and
18 see what we -- information we can find. So far I have
19 not found any specific records. The records that are in
20 the archives that would include personnel records are
21 not -- they are destroyed. So they are just not there.
22 So we'll keep looking for those.
23 Number two had to do with whether or not there
24 were animal experiments done on the ships when they were
25 here.

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1 MS. OLIVA: No, no, no. While they were --
2 MS. L. LOWMAN: When they were -- when they
3 were at CROSSROADS?
4 MS. OLIVA: Yes.
5 MS. L. LOWMAN: Yes, there were animals on the
6 target ships. That was part of the experimentation.
7 Lots of different types. And you know, what can I say?
8 They were part of that experimentation, that of mice,
9 rats, guinea pigs, pigs, goats. I'm trying to think of
10 everything I've read about, but that's basically.
11 MS. OLIVA: Where did they go?
12 MS. L. LOWMAN: Most of them died during the
13 tests.
14 MS. OLIVA: Where did their --? Well, they
15 must have been dissected to find out the results. So
16 where w- --?
17 MS. L. LOWMAN: I -- I have very few records of
18 any of the animals coming back here. I have one record
19 that indicates there were some mice that were sent back
20 here for some experiment, you know, like an autopsy-type
21 experimentation.
22 Any animals so far on the research that we have
23 done if they were injected with an isotope or were
24 contaminated in some way with radioactive material, they
25 were packaged and disposed of properly.

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1 If they were irradiated with an x-ray machine,
2 we haven't got the exact disposal methods for those, but
3 it looks like most of those would have gone in the
4 landfill. But they were not -- but they were not
5 radioactive. We have to make sure we clarify that.
6 MS. OLIVA: But the mice that came off -- there
7 was a group of mice that came off one of the target
8 ships and came here.
9 MS. L. LOWMAN: Possibly. We've got some --
10 Like I said, the records on the animals and what
11 actually happened to them, the ones that were at
12 CROSSROADS are very sporadic. There are some records
13 that indicate some were sent back here.
14 MS. OLIVA: Okay.
15 MS. L. LOWMAN: But also there's so- -- that
16 same record indicates some of them may have gone to the
17 NMRI, the Naval Medical Research Institute, in Bethesda,
18 Maryland.
19 So we are trying to find out exactly -- you
20 know, I don't want to give out information that's
21 erroneous or make s- -- make people assume something
22 that might not be absolutely true.
23 MS. OLIVA: In the '50s when this happened, how
24 would they transport those?
25 MS. L. LOWMAN: It was in the '40s.

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1 MS. OLIVA: Forties. How did they transport
2 those back East?
3 MS. L. LOWMAN: You know, I would assume that
4 if they were still alive, they came back on a ship. And
5 if they were deceased, then they came back on a ship in
6 a cooler or something like that.
7 MS. OLIVA: Thank you.
8 MS. PENDERGRASS: Miss Asher.
9 MS. ASHER: [Sans microphone] I have a question
10 about the interviews, the interviews, the interviews,
11 the interviews, [with microphone] the interviews that
12 you're doing. What --? How does that work as a
13 scientific model?
14 Like, if you just get a few people here and
15 there and you don't get the people that Jesse was
16 talking about, for example, who lived at the base, how
17 valid is your data as a scientific model?
18 I am not a scientist, but this seems kind of
19 basic to me that this is bad scien- -- oh, I shouldn't
20 use -- I -- it's -- it's limited in its scope; would you
21 not agree with that?
22 MS. L. LOWMAN: Okay. I think as far as the
23 scope of the interviews, the interviews are -- we are
24 trying to talk with people that have any information
25 about radiological operations at the facility so that we

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1 verify or look for additional areas where we need to do
2 research or look for additional areas of reference done.
3 It's not a scientific study. I'm not sure how I would
4 do interviews with people as a scientific study.
5 Most of the folks that we have spoken with are
6 very proud of the work they did here. They very much
7 want to share any experience they had with us. But
8 using them as -- to correlate some sort of scientific
9 research, I don't think I can do that with the
10 interviews.

11 The idea is that we talk to the people who were
12 actually here at the time. A lot of them passed away
13 not because of anything unusual. Just because NRD
14 closed in '69, and the Shipyard closed in '74; so you
15 start to get people that are older, and they are just
16 passing on as just something that happens.

17 But we aren't attempting to do a scientific
18 study for those. We are not saying, "Do you have any
19 health problems?" "Are we correlating this
20 information?"

21 We -- and most of the people we are talking
22 with are very healthy, very proud of the work they were
23 doing.

24 We had an amazing gentleman yesterday who
25 actually came out here to the Shipyard. He knew every

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1 building. He knew what was done all over the Shipyard.
2 He was amazing 78 years old, very spry, very active,
3 lived nearby. Really good information we got from him.

4 MS. PENDERGRASS: Ms. Lowman, we need to move
5 on.

6 We have three more questions. We are going to
7 take the one question that we had from the audience, and
8 we are going to -- we're going to stop.

9 And Dr. Sumchai, I'm sorry, you were on that
10 list. We are going to stop because we have an
11 announcement we need to make and then the second part of
12 the presentation. So I'm sorry. If we could keep the
13 question to one question so that it's not multiple
14 questions in areas that we have covered.

15 Miss Lutton, you are next.

16 And Dr. Sumchai --

17 MS. LUTTON: -- did the Navy ever figure out
18 how to successfully decontaminate? In fact, they did
19 all these experiments on how to decontaminate things.
20 Did they ever give an ans- --? Did they ever figure out
21 a way to do it?

22 MS. L. LOWMAN: Yes.

23 MS. LUTTON: Which is . . . ?

24 MS. L. LOWMAN: It's a combination of -- it's a
25 combination of sandblast grit and doing some

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1 sandblasting. There are some acid-wash treatments that
2 they also used. It depends on the surface that they are
3 decontaminating, where the system they are
4 decontaminating. So -- But there are successful
5 methods, and they are still using them today.

6 MS. LUTTON: Thank you.

7 MS. L. LOWMAN: Mm-hmm.

8 MS. PENDERGRASS: Dr. Sumchai.

9 MS. SUMCHAI: I just want to make a -- a couple
10 of quick clarifying statements, because I had the
11 opportunity up until the year 2000 to be an attending
12 physician in charge of the Persian Gulf Agent Orange
13 Ionizing Radiation Registry at the Palo Alto VA, the VA
14 Hospital, in the United States of America is the largest
15 toxic registry in the country.

16 And there is no question that the atomic vets
17 had health effects that were documented from OPERATION
18 CROSSROADS, including increased cancer rates and
19 infertility; and they could be compensated for these
20 health effects, or if they died, their beneficiaries
21 could be compensated.

22 Secondly, there was a statement about no one
23 living on the base, and Parcel A is described as having
24 a -- bachelor servicemen housing on it.

25 And then I also want to ask a question finally

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1 that might sound very, very naive. But this was
2 deliberately a exposure of 79 ships to an atomic blast
3 for purposes of determining how to decontaminate them?

4 MS. L. LOWMAN: Okay. Let me run the -- the
5 Atomic Veterans. Yes, we have referred some family
6 members to appropriate numbers and contact agencies for
7 the atomic veterans. It's very interesting to read all
8 their stories; and -- and -- and certainly, they went
9 through some amazing experiences. That was your first
10 issue.

11 Your second issue was families living on the
12 base?

13 MS. SUMCHAI: Right.

14 MS. L. LOWMAN: Okay. I have various -- I
15 have a very nice lady over here, Tochbee [phonetic].
16 Her husband was in the Navy; and she's saying that only
17 officers lived on the base.

18 When I talked about people living on the base,
19 I didn't say they didn't live there. What I said was:
20 We had not been contacted --

21 MS. SUMCHAI: Okay.

22 MS. L. LOWMAN: -- by anyone who lived on the
23 base. We have been contacted by Navy personnel, but
24 they did not live on the base. One gentleman lived on a
25 ship that was tied up at the base and saw some

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1 radiological operations, but he did not live
2 specifically on the base itself.
3 MS. SUMCHAI: Okay. And then the --
4 MS. L. LOWMAN: And that's --
5 MS. SUMCHAI: -- purpose of OPERATION
6 CROSSROADS --
7 MS. L. LOWMAN: The purpose of --
8 MS. SUMCHAI: -- was --
9 MS L LOWMAN: -- OPERATION CROSSROADS was to
10 test the weapons, not test the decontamination methods.
11 They were designed to test the weapons themselves.
12 These were the fourth and fifth detonations
13 ever of an atomic weapon. They did an air burst to test
14 that, and they did a -- an underwater burst, which had
15 never been done before, to see what would happen. And
16 the idea was: They did those tests to find out how to
17 protect the personnel.
18 They had Air Force flying planes through. They
19 had Army personnel that were involved with these. All
20 types of different experiments were going on, scientific
21 and military experiments having to do with these
22 weapons, so that they could develop their own defense
23 systems and protect their own personnel.
24 MS. SUMCHAI: So they deliberately exposed
25 79 ships to an atomic blast. I mean, if it's

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1 essentially that, it's -- okay. Yes.
2 MS. L. LOWMAN: Well, actually, they had
3 180 ships at the test site. The number of target ships
4 was not 81. But they had support ships.
5 MS. PENDERGRASS: Okay. We have -- I'm sorry.
6 MR. R. LOWMAN: Can I say one thing?
7 MS. PENDERGRASS: You're not on my list.
8 MR. R LOWMAN: I just forgot.
9 MS. PENDERGRASS: I'm sorry.
10 MR. R. LOWMAN: -- answer Dr. Sumchai.
11 MS. PENDERGRASS: I yield to --
12 MR. R. LOWMAN: That's all right.
13 MS PENDERGRASS: Well, but it's not your turn.
14 One second. We had a question over on this
15 side.
16 I'm sorry, but everybody wants to be heard. I
17 want to make sure everybody gets heard.
18 MS. E. JACKSON: I would just like to say -- I
19 do speak loud. I don't need a microphone.
20 THE REPORTER: I don't know who you are.
21 MS E. JACKSON: Oh. Espanola Jackson,
22 E-s-p-a-n-o-l-a; last name is Jackson.
23 I was saying that my husband was in the Navy,
24 stationed here at Hunters Point, and the building right
25 across the street over there was the Bank of America

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1 where I would have to cash my check.
2 Now, where people actually lived was -- with
3 families was right over here across the street in
4 Mariner's Village.
5 MS. PENDERGRASS: You need to ask your
6 question.
7 MS JACKSON: No, no. It wasn't a question,
8 because he asked the question. I wanted to make sure
9 you understood what was going on during that time and
10 what actually happened because of the fact that I was
11 living here.
12 Another thing is that -- There was another
13 question I was answering she talked about. Someone
14 asked a question about cleaning of the ships.
15 I must say that those people, residents of
16 Bayview-Hunters Point, when they get sandblasting off
17 those ships, you ask what happened? They took it home
18 with them. It was in their clothes. That's what
19 happened.
20 Even a law -- there was a suit about 20 years
21 ago where some of the people that had worked in the
22 Shipyard was aiming to get moneys because they were ill
23 and lot of them had died because of the -- not only the
24 sandblasting, but -- what's that other one? -- asbestos.
25 Thank you.

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1 So all of that was going on up until through
2 '70s.
3 And I must say to you, in the '70s, there was a
4 radiation spill over there on Palou, the Palou area.
5 And we tried to get people, even the Health Department,
6 to test the people that lived over that area, but that
7 was never done.
8 Thank you.
9 MS. PENDERGRASS: It sounds like Miss Jackson
10 would be an excellent . . .
11 MS. OLIVA: "It sounds like."
12 MS. L. LOWMAN: Yes. That's what I am
13 thinking.
14 Miss Jackson, if you could call our 1-800
15 number, which is 1-800-443-7164, and give your
16 information so we can contact you and do an interview
17 with you.
18 MS. PENDERGRASS: Just give you that tonight
19 before you leave?
20 MS. L. LOWMAN: Sure.
21 MS. PENDERGRASS: Okay. So . . .
22 MS. L. LOWMAN: That's fine.
23 MS. PENDERGRASS: Okay. That would be great.
24 All right.
25 And I'm sorry. I don't mean to be rude --

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1 MS. L. LOWMAN: But if anybody else knows
2 someone, 1-800-443-7164. I have got the number down. I
3 feel like I'm on TV.
4 MS. TROMBADORE: Would you say that again,
5 please.
6 MS. L. LOWMAN: 1-800-443-7164.
7 MS. PENDERGRASS: Okay. Claire? You had an
8 announcement. And then we're going to do the second
9 half of --
10 MS. TROMBADORE: Well, what about Mr. Lowman?
11 Does he have augment her [sic] --
12 MS. PENDERGRASS: What I'm asking is that you
13 make your presentation -- or your announcement. Miss
14 Lowman is going to go into the second half of her
15 presentation. Before she does that, we can hear from
16 him.
17 MS. TROMBADORE: Okay. All right. I don't
18 need a microphone.
19 I'm Claire Trombadore with the Environmental
20 Protection Agency. And our radiation expert at EPA,
21 Mr. Steve Dean, was not available to come to tonight's
22 meeting. He has committed to come to the May 22nd RAB,
23 and it seems that you have a lot of good subject matter
24 to continue to get through tonight. And actually, I
25 think it's better that he is coming in May so we have

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1 some more time.
2 I just want to quickly let you know that EPA
3 provides oversight of the Navy's investigation and
4 cleanup of the Shipyard. The Navy is the lead agency,
5 but we provide oversight.
6 One of the things that we do is: When the Navy
7 has completed a cleanup of an area that they believe was
8 impacted by radiation, we come in and perform
9 confirmation surveys and, in our own minds, feel good
10 that we are leaving the Shipyard protective of human
11 health and the environment
12 One of the things -- One of the tools that we
13 used is a scanner van, and we got this from our Las
14 Vegas laboratory.
15 It's -- It looks like a bread truck that you
16 see deliver bread to -- here is a picture of it --
17 deliver bread to the grocery store. And it was
18 outfitted with a very large radiation detector. I think
19 it's 4 feet by 16 -- I mean 4 -- 4 by 16 inches. It's a
20 very large detector as opposed to a hand-held, which is,
21 you know, about the size of my forearm.
22 And the scanner van drives at a very slow rate
23 of speed and outside -- out the right side of the
24 vehicle to a depth of approximately 2 feet can detect
25 gamma radiation and can speciate what it detects.

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1 So our Region 9 expert, Steve Dean, requested
2 that Vegas bring the scanner van to Hunters Point
3 Shipyard in particular to take a very close look at
4 Parcel A, which at the time was heading toward transfer.
5 We did a drive-through survey on Parcel A the
6 week of September 9th, 2002. And the report from that
7 survey is out. It was released on April the 10th, and I
8 mailed it and E-mailed it to a lot of folks.
9 But I also brought copies here to the meeting.
10 Want to make sure any RAB member who would like the
11 report and my cover letter that explains a lot of it can
12 walk away tonight with that report. If we don't have
13 enough copies, we do have a sign-up sheet, and Jackie
14 will take your name, and I can either e-mail or send a
15 hard copy to you, whichever you prefer, or both.
16 In addition, I brought -- Steve Dean suggested
17 I bring two EPA documents that give a little bit of
18 general information about ionizing radiation and the
19 health effects from ionizing radiation. So I brought
20 those.
21 So that's about all I had to say, and just want
22 to make you aware that this report is out. The findings
23 basically were -- I just want to read the actual finding
24 here.

25 "All of the anomalies detected during the scan

Page

1 were attributable to natural-occurring sources at levels
2 consistent with that -- with what would normally be
3 found in the environment. And based on the scan
4 results, none of the areas which were scanned --" and
5 again, there's a map in the report -- "warrant further
6 radiological investigation."
7 And I want to just quickly say that we focused
8 on Parcel A. There -- They did drive on other sections
9 of the base. But any area that was on -- going on --
10 going rai- -- remediation was going on on Parcel D and
11 Parcel E or any off-road area, which is pretty much most
12 of Parcel E, the van is not capable to drive on those
13 kind of roads. It has to be navigable roads. And
14 further, as I said, it's more of a confirmation tool
15 than an investigative tool.
16 MS. PENDERGRASS: Claire --
17 MS. TROMBADORE: So --
18 MS. PENDERGRASS: Would your --? Will a
19 representative from your agency be here at the next RAB
20 to go --
21 MS. TROMBADORE: Yes.
22 MS. PENDERGRASS: -- over this in depth and
23 answer questions?
24 MS. TROMBADORE: Yes.
25 MS. PENDERGRASS: Okay.

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1 MS. TROMBADORE: So I'm sorry if I took too
2 much time.
3 MS. PENDERGRASS: Okay. Thank you.
4 MR. FORMAN: Thank you, Claire.
5 MS. PENDERGRASS The person for next, unless
6 it's --
7 MS. OLIVA: It is about the process.
8 MS. PENDERGRASS: I mean about the process of
9 distributing the information? No, no.
10 MS. TROMBADORE: I'm not a radiation expert.
11 I'm just a project manager. So you can always call me
12 with any -- you know, any additional questions. My name
13 is in -- My name and number are in the cover letter
14 that you will also get a copy of -- okay? -- as is
15 Mr. Steve Dean's.
16 MS. PENDERGRASS: Thank you.
17 MS. TROMBADORE: Thank you for letting me
18 speak.
19 MS. L. LOWMAN: Mr. Lowman, would you like to
20 say something?
21 MR. R. LOWMAN. I was just going to answer
22 Dr. Sumchai's question, which is why did the Navy do
23 this -- I don't think I need it (indicating
24 microphone) -- was why did the Navy do this. Was it to
25 see that we could decontaminate ships? No, it wasn't.

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1 MR. MASON: I can't hear you. I can't hear
2 you.
3 MR. R. LOWMAN. These were new weapons they had
4 never used before, and the tests were designed to see
5 the survivability of a United States Navy fleet.
6 The majority of the tests -- or the target
7 ships, they were put into the lagoon at Bikini, and they
8 were fairly close together.
9 And the ships that sank, the Prinz Eugen, the
10 German battleship; the Nagato, a Japanese cruiser;
11 several Japanese destroyers; a couple of Japanese
12 submarines, the old Navy submarines were there were not
13 intended to be used again. And the USS Saratoga sank
14 and -- when we lost her.
15 So we lost a bunch of ships. But that was the
16 intent. What will be the effect?
17 One of the things we learned was how to space
18 our ships when we went to sea as task force in the
19 future, and it's based on what happened at Bikini.
20 So it wasn't to learn how to decontaminate
21 anything. It was learning survivability of the United
22 States Navy.
23 MS. SUMCHAI: What was the mortality from this
24 experiment? Do you know?
25 MR. R. LOWMAN: I have no idea. I really

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1 I can't. You have to ask DTRA, who goes back to the
2 atomic veterans. We can go on the Atomic Veterans
3 pages, and we'll just find, you know, a veteran from
4 this ship or a veteran from that ship
5 There's no real good centralized thing because
6 for years, to be honest with you, they stonewalled the
7 veterans, but they have now turned around and changed
8 their minds. It goes back the other way
9 MS. SUMCHAI: Then the atomic bomb had been
10 dropped on Hiroshima and Nagasaki just not in a test
11 situation?
12 MR. R. LOWMAN: Oh, absolutely not. That was
13 not a test. That was a detonation.
14 And one other question or one other thing I had
15 for Miss Asher was: When we selected these people to
16 talk to, the original HRA I had interviewed about
17 12 people. They were all scientists at NRDL. We came
18 under a lot of fire in saying you need to talk to the
19 people in the trenches.
20 So what we picked out was guys that are
21 sandblasters down at the piers when they did these
22 things, ship fitters, sheet metal workers.
23 The guy that we talked to yesterday was --
24 started off as apprentice woodworker. He was able to
25 tell me if you were over at 815 in the early -- late

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1 '30s and early '40s, you could swim from Building 815
2 because that was Shag Rock Beach --
3 MR. ATTENDEE: Right
4 MR. R. LOWMAN: -- and it was all filled in out
5 there. Now, why we haven't gotten anybody from Bayview?
6 Because nobody called us. A lot of people had said
7 "Well, we're going to get somebody to call you," but
8 absolutely nobody has called us.
9 MS. PENDERGRASS All right. Miss Lowman, are
10 you prepared to report with the rest of your
11 presentation for the second half, and then we will have
12 more questions? Because I think at that point if --
13 if --
14 MS. L. LOWMAN: Did you bring the presentation,
15 the one with buildings?
16 MS. E. JACKSON: What you all saying? I can't
17 hear.
18 MS. L. LOWMAN: We are saying if we messed
19 up . . .
20 MR. FORMAN: I don't know where Doug is.
21 MS. L. LOWMAN: Excellent. They are giving me
22 the blank stare.
23 MR. FORMAN: The other presentation?
24 MS. PENDERGRASS If you need a little moment
25 to regroup, what we could do is have quickly

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1 subcommittee reports and then the rest of your
2 presentation. But --
3 MS. L. LOWMAN: I think that would be a really
4 good idea.
5 MS. PENDERGRASS. Okay. Why don't we do that?
6 Okay.
7 Let's start with our subcommittee reports; and
8 if we can, if we could really keep it as brief as
9 possible, I think -- I saw copies of all the narratives
10 from the subcommittee reports.
11 So who would like to go first?
12 MS. PIERCE: I would.
13 MS. PENDERGRASS: Okay.
14 MS. PIERCE: The Risk Review Committee
15 meeting -- April meeting was cancelled, so there's no
16 minutes.
17 And the next meeting will be Tuesday, May 20th,
18 at 5:30 p.m. at 5021 Third Street.
19 MS. PENDERGRASS: Okay. Is there a request for
20 the Navy or any other support for that meeting?
21 MS. PIERCE: Not at this time.
22 MS. PENDERGRASS: Okay.
23 MS. SUMCHAI: I just had a quick question for
24 your committee. There are human health risk assessments
25 that have been done on Parcels A and B, and there's a

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1 radiation risk assessment for Parcel E. Why hasn't
2 your -- your subcommittee entertained reviewing those
3 reports?
4 In fact, we should probably have radiation risk
5 assessment reports done for all the parcels at this
6 point.
7 MS. PIERCE: Because committee members haven't
8 gotten to that point yet. But thank you for that
9 suggestion.
10 MS. PENDERGRASS: All right. The next
11 committee review.
12 MR. TISDELL: Hello. Keith Tisdell, leader of
13 the Membership & Bylaws Committee. On -- we did file,
14 you know, a report mentioned from our last meeting.
15 THE REPORTER: Excuse me. I'm sorry. Can you
16 hold on?
17 MS. PENDERGRASS: Yes.
18 MR. TISDELL. Hey.
19 (Pause in proceedings while reporter
20 requests Mr. Keichline admonish smoker.)
21 MS. PENDERGRASS: All right.
22 MR. TISDELL: And it's the minutes from the
23 Membership & Bylaws over on the table right there,
24 Joleen.
25 And we had a candidate who was supposed to be

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1 here this evening that the Membership & Bylaws approved.
2 But since there was no-show, we going to forgo that one,
3 Mr. Harry -- Harry Shin. And the other Asian did
4 show up for Membership & Bylaws, so we are waiting on --
5 waiting on her to show up. But --
6 And the next Membership & Bylaws meeting is
7 right here, the 13th, the second Tuesday of May, which
8 is May 13.
9 And I'm asking for more time on the -- in the
10 June meeting because there's quite a few members. Their
11 two-year term is up, and we want to catch everybody up
12 by then, and I need to read their names since some were
13 here and some not.
14 MS. PENDERGRASS We are going to do that in
15 May or in June?
16 MR. TISDELL: We hope to get it done by May,
17 but June definitely.
18 MS. PENDERGRASS: Okay. So can we make a note
19 to put that, Mr. Keichline, on the June agenda?
20 MR. KEICHLINE: I missed the schedule. I'm
21 sorry. I was dealing with them up here.
22 MS. PENDERGRASS: On the June agenda, the
23 Membership & Bylaws Committee would like to have a
24 little bit more time than their normal ten minutes.
25 Okay.

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1 MR. TISDELL: And if -- Ron, if you could
2 e-mail the people who time is up and let them know.
3 MR. KEICHLINE: I'll work with Melita.
4 MS. PENDERGRASS. You all can talk about that
5 in committee.
6 MR. TISDELL: Hey.
7 MS. SUMCHAI: You have your -- your minutes
8 from the March meeting, and I will transmit by
9 electronic mail the minutes from last night's meeting.
10 I wanted to just announce that there is a new
11 community center in Bayview-Hunters Point. It's called
12 The Greenhouse. It's located at 4919 Third Street at
13 Palou. And I had proposed having the May 21st meeting
14 of the subcommittee there in the evening.
15 I had invited Mr. Steve Dean from the EPA. I
16 was very impressed with his comments in the draft HRA
17 Response to Comments.
18 I also invited Mr. Daryl Vincent, who is
19 Mr. Forman's equivalent in the Army Corps of Engineers,
20 to specifically bring us up to date on the status of the
21 FUDS site of the need for the Army Corps of Engineers to
22 make some definitive decisions about the investigation
23 of these sites, and Mr. Vincent got back to me in an
24 e-mail about thirty minutes before I came to the
25 meeting, and he is not available. He's in Utah at the

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<p>1 time of this meeting.</p> <p>2 And again, Mr. Dean may not be available that</p> <p>3 evening 'cause he's going to be speaking here on the</p> <p>4 22nd.</p> <p>5 So I'm going to go ahead and keep that meeting</p> <p>6 date for the 21st, Wednesday, 6:00 to 8.00; but it may</p> <p>7 be necessary for us to move that around to accommodate</p> <p>8 our guests. We are going to have a RASO representative.</p> <p>9 So I think we probably need to keep that as a fixed, you</p> <p>10 know, meeting date right now.</p> <p>11 I do think it's incredibly important for us to</p> <p>12 pressure the Army Corps of Engineers to follow up on</p> <p>13 these FUDS sites.</p> <p>14 Let me say very, very quickly -- and I will</p> <p>15 end -- that with regard to the comments to the draft</p> <p>16 Historical Radiological Assessment --</p> <p>17 (Reporter interrupts.)</p> <p>18 MS. SUMCHAI: -- the comments of this, the</p> <p>19 draft Historical Radiological Assessment, Volume II, use</p> <p>20 of general radioactive materials 1939 2002, there is</p> <p>21 some incredibly insightful, visionary and creative</p> <p>22 thinking that went into this document. I am so</p> <p>23 impressed with some of the insight that was -- that is</p> <p>24 provided here.</p> <p>25 And there are some priority concerns that keep</p> <p style="text-align: right;">Page 73</p>	<p>1 MS. SUMCHAI: I know, I know. Okay.</p> <p>2 MS. PENDERGRASS. What you need to do is not</p> <p>3 give such a long summary of your report But if there</p> <p>4 is recommendations that need to come forth or you need</p> <p>5 to have something voted on and bring forth to the -- to</p> <p>6 the RAB, that's the time for the committee reports.</p> <p>7 Otherwise, we're going to run long, and we won't get the</p> <p>8 rest of the presentation. I'm sorry.</p> <p>9 MS. SUMCHAI: Okay, but, you know, my concern</p> <p>10 is that when I came to this meeting, what -- I expected</p> <p>11 that this document was going to be addressed, and I'm</p> <p>12 concerned that it hasn't been.</p> <p>13 So in the time that you just took reprimanding</p> <p>14 me, I would have been finished.</p> <p>15 I'm going to make two --</p> <p>16 MS. PENDERGRASS: Yes, ma'am. I'm sorry.</p> <p>17 MS. SUMCHAI: -- other quick points.</p> <p>18 One, there's a need for radiation risk</p> <p>19 assessment reports for all of the parcels on the</p> <p>20 Shipyards.</p> <p>21 And the final report, I want to emphasize to</p> <p>22 you that the California Department of Health Services'</p> <p>23 release for unrestricted use of Buildings 816 and 821 on</p> <p>24 Parcel A could be legally challenged.</p> <p>25 The standard that was used was: An NRC</p> <p style="text-align: right;">Page 75</p>
<p>1 surfacing, and I just want to highlight as bullet</p> <p>2 points.</p> <p>3 Again, the FUDS and the residual 15,000-gallon</p> <p>4 underground tanks at Building 815, Amy Brownell has been</p> <p>5 in communication with Mr. Vincent. Mr. Vincent says</p> <p>6 that Mr. Lowpensky did give them access to the building.</p> <p>7 So there is some continued activity there, and we need</p> <p>8 to follow up on that.</p> <p>9 Also, Building 8- -- 820, which housed the</p> <p>10 cyclotron, was determined by NRDL to not require a</p> <p>11 release in 1969. So it has never been investigated.</p> <p>12 MS. PENDERGRASS: Dr. Sumchai, I'm going to</p> <p>13 stop you for a second, because you're making a report</p> <p>14 about a report. And --</p> <p>15 MS. SUMCHAI: Well, I'm actually making a</p> <p>16 report about items that were discussed at last night's</p> <p>17 meeting, and I will quickly --</p> <p>18 MS. PENDERGRASS So --</p> <p>19 MS. SUMCHAI: -- finish my --</p> <p>20 MS. PENDERGRASS: But what -- what I'm saying</p> <p>21 is, is that part of your repo- -- your written report as</p> <p>22 well?</p> <p>23 MS. SUMCHAI: It will be when I compile it.</p> <p>24 MS. PENDERGRASS: Okay, because what I -- time</p> <p>25 permitting.</p> <p style="text-align: right;">Page 74</p>	<p>1 standard that is below the EPA standard is currently</p> <p>2 being challenged in courts. Miss Lowman acknowledged</p> <p>3 that there's seven bills in the state legislature that</p> <p>4 all oppose any more stringent standard than the EPA</p> <p>5 standard.</p> <p>6 So the -- in essence, the Parcel A transfer</p> <p>7 could be legally challenged on the basis of the</p> <p>8 appearance of those two buildings.</p> <p>9 MS. LUTTON: What's the name of that cross</p> <p>10 street and the address where the meeting will be?</p> <p>11 MS. SUMCHAI: It's 4919 Third Street right at</p> <p>12 Palou. It's right across the street from the -- from</p> <p>13 the paper. I'll definitely be in contact with you And</p> <p>14 I appreciate your comments also.</p> <p>15 MS. PENDERGRASS: Miss Franklin has --</p> <p>16 MS. FRANKLIN: Yes, I --</p> <p>17 MS. PENDERGRASS: -- has a comment about the</p> <p>18 membership and bylaws.</p> <p>19 MS. FRANKLIN: I was not given the opportunity</p> <p>20 to respond to the Bylaws Committee report. And reading</p> <p>21 the report, which is --</p> <p>22 Thank you [grabbing microphone].</p> <p>23 Yeah. I -- I appreciate getting the reports by</p> <p>24 mail.</p> <p>25 In -- in relations to the bylaw report, I</p> <p style="text-align: right;">Page 76</p>

<p>1 would -- it appears that an oligarchy has been set up 2 i- -- within the Bylaw Committee. 3 And I would like to make a motion that the 4 bylaws make -- be in place until the end of the year, 5 because each time that a new member approaches or 6 applies for the RAB, the bylaws are changed. So this 7 is -- this is not good. 8 So I would that we set aside one month, which 9 is after in December, to review or amend. But I don't 10 want -- I would hate to see any more changes being made 11 each time a member joins. And this is not good. It's a 12 bad impression and it has a bad message. 13 MS. PENDERGRASS: Miss Franklin, you put a 14 motion on the floor. 15 MS. FRANKLIN: Yes. 16 MS. PENDERGRASS: Is there a second to that? 17 MR. TISDELL: What's the motion? 18 MS. FRANKLIN: A motion is that there be no 19 more changes or amendments to the by- -- the bylaws for 20 the rest of the year, and then we look at the amendments 21 at the end of the year. 22 MS. PENDERGRASS: Is there a second to that 23 motion? 24 MS. H. JACKSON: Second. 25 MS. PENDERGRASS: Okay. At this point . . .</p>	<p>1 clarification in this month's minutes? Is that --? 2 MR. BROWN: Right. 3 MS. LUTTON: I guess we should repeat -- 4 MS. FRANKLIN: Inform -- inform the RAB -- 5 inform the RAB of what you're doing. Inform the body of 6 what's going on. That's -- 7 MR. MASON: Give it to Ron. 8 MS. FRANKLIN: -- the point. 9 MR. KEICHLIN: In the Membership & Bylaws 10 Committee, Mr. Tompkins made a motion to only revise the 11 bylaws once a year. 12 MS. LUTTON: Yeah. 13 MR. KEICHLIN: The date he set was the month 14 after the co-chair election as the appropriate time. 15 You're saying December now. But Mr. Tompkins' motion 16 was the month after the co-chair election, which would 17 be August. So just to clarify that. 18 MS. FRANKLIN: It's not written, sir. 19 MR. KEICHLIN: It's discussed in the bylaws. 20 MS. FRANKLIN: If it's not written, it didn't 21 happen. 22 MR. KEICHLIN: Well, the motion to the RAB on 23 the second sheet of the Membership & Bylaws is that 24 the -- stating that the bylaws will only be revised once 25 per year in the month following the election of the</p>
<p>1 We have a motion on the floor, and we have to give time 2 for the discussion at this point because there is a 3 motion on the floor regarding this, although this is a 4 topic that needs to be addressed at the Membership & 5 Bylaws Committee level. 6 MS. FRANKLIN: I think it should be addressed 7 here because we get -- the oligarchy is set up, okay? 8 And we don't need to change the bylaws without copies of 9 the amendments to be implemented by the group. 10 MR. BROWN: Marie, we'd already taken care of 11 that. We said the same thing what you said about that. 12 We won't change the bylaws until the end of the year 13 unless it's necessary. 14 MS. FRANKLIN: But that wasn't reported within 15 the communication I received in the mail. 16 MR. BROWN: But that's what we said. 17 MS. FRANKLIN: There's a motion I would like to 18 get in -- 19 MR. BROWN: I'm sorry if it's not -- wasn't in 20 there. This is what we said at the Membership & Bylaws 21 meeting. 22 MS. LUTTON: If the minutes did not include 23 that, then that's a mistake. 24 MR. BROWN: Right. 25 MS. PENDERGRASS: So do we need to have a</p>	<p>1 Community Co-chair. So it is in there. 2 MR. MANUEL: Okay. I have a question. 3 MS. PENDERGRASS: Yes, sir. 4 MR. MANUEL: Basically, did it get voted on and 5 approved? Or . . . 6 MR. KEICHLIN: It's a motion to the RAB. 7 MR. MANUEL: Okay. When did -- when did it get 8 made, or why didn't we approve it when it was made? 9 MR. KEICHLIN: I don't know. Mr. Tisdell made 10 that motion to the RAB. 11 MR. MANUEL: Mr. Tompkins maybe. 12 MR. KEICHLIN: I don't know. 13 MS. PENDERGRASS: At this point, though, Miss 14 Franklin has a motion on the floor -- it's been seconded 15 by Miss Jackson -- and that is to put off -- put off 16 this vote. At this point if discussion around that 17 motion is ended, we need to vote on it. 18 MR. BROWN: What was -- what was --? Let's go 19 back 20 MS. PENDERGRASS: The motion is to not change 21 the bylaws until once a year and have that possibly be 22 at the end of the year. That was the motion and that 23 was seconded. 24 MR. MANUEL: I'd like to offer a friendly 25 amendment to that motion.</p>

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1 MS. PENDERGRASS: Certainly.
2 MR. MANUEL: Okay.
3 Marie, in the interest of all the group being
4 together here on this thing, it seems like there's
5 already consensus that this is a relevant point. Would
6 you accept the month after the co-chair elections
7 instead of December? And then we go ahead and vote on
8 it --
9 MS. PENDERGRASS: Yes.
10 MR. MANUEL: -- because then it's over with,
11 you know, because it is something that's already wanted.
12 Would you accept that? A month after --
13 In other words, your motion for December, would
14 you accept that we do it as per what he was talking
15 about, which is a month after the election of the
16 Community Co-chair?
17 MS. FRANKLIN: Does that mean that all of the
18 amendments that were made since I joined would be
19 reversed?
20 MR. KEICHLINE: No.
21 MS. FRANKLIN: Or would you continue --
22 MR. KEICHLINE: No.
23 MS. FRANKLIN: -- to add?
24 MR. KEICHLINE: No.
25 MR. MANUEL: No. It means -- I'm assuming

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1 that once the motion is carried, that things would stop.
2 MR. KEICHLINE: No.
3 MS. PENDERGRASS: No. What would happen if her
4 motion carried is that the -- the bylaws are still in
5 place --
6 MR. KEICHLINE: Right.
7 MS. PENDERGRASS: -- until they are reviewed at
8 a month after that. And only at that time that they'll
9 be reviewed, you'd still have to go through the process
10 of bringing those reviewed bylaws to the full body and
11 having a vote.
12 MR. KEICHLINE: That's correct.
13 MS. FRANKLIN: And I'll accept bringing the
14 by- -- bringing all the bylaws to the full body once a
15 year for -- and -- and along with the amendments. I
16 would accept that once a year.
17 MR. MANUEL: That's what -- that's what
18 basically --
19 MS. FRANKLIN: Okay. That's what they are
20 saying, but that's what needs to be done, because I've
21 seen them changed four times.
22 MR. MANUEL: But that's not --
23 MS. PENDERGRASS: So --
24 MR. MANUEL: That's what's on the --
25 MS. PENDERGRASS: So --

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1 MR. MANUEL: -- floor.
2 MS. PENDERGRASS: -- Miss Franklin, did you --
3 did you accept this friendly --
4 MS. FRANKLIN: I would --
5 MS. PENDERGRASS: -- amendment?
6 MS. FRANKLIN: I will accept a annual amendment
7 to the bylaws.
8 MS. PENDERGRASS: Okay --
9 MR. MANUEL: Yeah, that's --
10 MS. PENDERGRASS: -- which -- okay.
11 So we've got a friendly amendment to the bylaws
12 in not having to necessarily be only in December.
13 MR. MANUEL: Right, right.
14 MS. PENDERGRASS: All right. So all in favor
15 of that motion by hands, please, in favor?
16 All opposed?
17 MR. KEICHLINE: Hold it. Sorry.
18 Could you hold the hands high so I can get a
19 count?
20 MS. PENDERGRASS: Count?
21 All in favor, please.
22 MR. KEICHLINE: Six, seven, eight.
23 MR. BROWN: That's a --
24 MS. PENDERGRASS: All right. And all those --
25 MR. KEICHLINE: Eight ayes.

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1 MS. PENDERGRASS: Okay.
2 All of those opposed to that? Do we have any
3 opposing?
4 MS. RAB MEMBER: No.
5 MS. PENDERGRASS: Do we have any abstentions?
6 We have two abstentions here. All right. So that
7 motion does carry and that puts that to rest.
8 MR. KEICHLINE: Can I --? Just to clarify what
9 you said earlier. So what happens now is The
10 amendment goes to the bylaws. We'll make a revised
11 bylaws that will be voted next month to accept that
12 revision, because the bylaws state that no amendments to
13 the bylaws be made without --
14 MR. RAB MEMBER: We're going to vote.
15 MR. KEICHLINE: -- seven days' notice --
16 MS. RAB MEMBER: Voted down, no.
17 MR. KEICHLINE: The bylaws state that there
18 cannot be a mo- -- amendment to the bylaws without the
19 RAB members having seven days to review. So this will
20 be put together as a revised, red-lined, struck-out
21 bylaw presented next month for final approval. That
22 cannot be any other way.
23 MS. PENDERGRASS: Miss Franklin, your motion
24 amends the bylaws. So this is an amendment that you
25 didn't want to happen. So if you don't want that, we

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<p>1 have to rescind that motion.</p> <p>2 Do you understand what you just did?</p> <p>3 MS. FRANKLIN: No, no. The thing is that when</p> <p>4 I joined, there was a bylaw --</p> <p>5 MS. PENDERGRASS: Stay with me here. Stay with</p> <p>6 me here on the point.</p> <p>7 The point is, you just amended the bylaws. You</p> <p>8 just made a motion to amend the bylaws.</p> <p>9 MS. FRANKLIN: That was not an amendment.</p> <p>10 MS. PENDERGRASS: Your motion, in effect,</p> <p>11 amended the bylaws. And the bylaws do require that any</p> <p>12 amendment has to be given seven days in advance.</p> <p>13 Is that not correct?</p> <p>14 MR. KEICHLINE: True.</p> <p>15 MS. PENDERGRASS: Seven days. So that means</p> <p>16 that your amendment -- the amended bylaws with your</p> <p>17 amendment that you just made needs to come to the full</p> <p>18 RAB for a vote. Okay.</p> <p>19 So do you understand that?</p> <p>20 MS. FRANKLIN: Isn't this the by- -- the RAB</p> <p>21 here?</p> <p>22 MS. PENDERGRASS: Yes, ma'am.</p> <p>23 MS. FRANKLIN: Okay. Well, why don't we vote</p> <p>24 now?</p> <p>25 MS. PENDERGRASS. Because we haven't given the</p> <p>Page 85</p>	<p>1 so that it will be brought back for review next month.</p> <p>2 MR. MANUEL: That --</p> <p>3 MS. FRANKLIN: Okay. Then -- then I -- I --</p> <p>4 then I will demand that there be one every -- at every</p> <p>5 meeting that bylaws be listed for everyone to view.</p> <p>6 Also, a committee group, a member of each</p> <p>7 committee, subcommittee, that be included, you know, the</p> <p>8 names on each committee --</p> <p>9 Just a minute, because --</p> <p>10 MS. PENDERGRASS Miss Franklin, you're -- the</p> <p>11 issues that you're raising right now are too detailed to</p> <p>12 talk about and discuss at this meeting without being on</p> <p>13 the agenda.</p> <p>14 MS FRANKLIN: Well, because --</p> <p>15 MS. PENDERGRASS: What -- Miss Franklin, the</p> <p>16 process for this is that you a- -- you need to talk with</p> <p>17 the chair of the Membership & Bylaws Committee, discuss</p> <p>18 this at a regularly scheduled meeting, and bring a</p> <p>19 recommendation forward to the Board. That's the</p> <p>20 process.</p> <p>21 I'm going to close this discussion at this</p> <p>22 point. We have a motion that has passed on the floor,</p> <p>23 and we will act accordingly based on that.</p> <p>24 At this point, we are going to move forward</p> <p>25 with the rest of our announcements. I think we have two</p> <p>Page</p>
<p>1 seven days to -- for everybody to get that information.</p> <p>2 As you have said, everybody's not here tonight.</p> <p>3 MS. FRANKLIN: Well, that's --</p> <p>4 MR. SAUNDERS: Point of information.</p> <p>5 MS. PENDERGRASS: Yes, sir.</p> <p>6 MR. SAUNDERS: In the bylaws, No. 17,</p> <p>7 "Amendments." It basically says, "Amendments to these</p> <p>8 Bylaws require a majority of vote at a regular RAB</p> <p>9 meeting," which is any RAB meeting. That's what the RAB</p> <p>10 agreed at that time.</p> <p>11 So what you're requesting really is an</p> <p>12 amendment to the bylaws, to change it so you only amend</p> <p>13 the bylaws once a year, while the -- while the bylaws</p> <p>14 basically state right now that you can submit an</p> <p>15 amendment every meeting. "Written notice of the</p> <p>16 amendments and their terms must be given at least one</p> <p>17 week prior to the meeting."</p> <p>18 MR. KEICHLINE: Right.</p> <p>19 That's why the motion cannot go into effect</p> <p>20 tonight.</p> <p>21 MS. PENDERGRASS: That's right. It has to --</p> <p>22 MR. MANUEL: That's -- that's fair. It's in</p> <p>23 the bylaws.</p> <p>24 MS. PENDERGRASS: Right.</p> <p>25 So what you've just done is amended the bylaws</p> <p>Page 86</p>	<p>1 committees left, and we need to get those dates on the</p> <p>2 board, and we have the rest of a presentation we need to</p> <p>3 do in the next ten or fifteen minutes.</p> <p>4 MS. FRANKLIN: I'll be sending a written</p> <p>5 response.</p> <p>6 MS. PENDERGRASS: Yes, ma'am.</p> <p>7 MS. FRANKLIN: Thank you.</p> <p>8 MS. PENDERGRASS: Thank you.</p> <p>9 Let's see.</p> <p>10 Mr. Mason?</p> <p>11 MR. MASON: Yes.</p> <p>12 MS PENDERGRASS: Did you have a report?</p> <p>13 MR. MASON: Yes, I do.</p> <p>14 MR. ATTENDEE: Give him the mic.</p> <p>15 MR. MASON: Okay. Mr. Campbell is not here</p> <p>16 today, but he called me when he came here from</p> <p>17 Sacramento and asked me to give the economic report.</p> <p>18 The Economic Committee met on April --</p> <p>19 April 9th at 1790 Yosemite. And all those that were</p> <p>20 present -- all those that were present were Foster</p> <p>21 Wheeler, Tetra Tech, I.T.S.I.; we had Chon Son, who is</p> <p>22 the contract compliance officer, and World Technology</p> <p>23 and also Mr. James Fields of the Human Rights</p> <p>24 Commission.</p> <p>25 In that meeting, we looked at last month's</p> <p>Page 88</p>

1 money that came into the community, and it was about
2 \$41 million. The community didn't get as much money as
3 we would like for them to get. We know that the
4 truckers have gotten some of the -- the hauling money
5 out of that, which was fantastic.
6 But we were also looking at the last 100 task
7 orders that the Navy put out. There was not too much
8 community participation.
9 But we discussed the way to solve this problem.
10 And some of the prime contractors that we dealt with in
11 the meeting had came up with some suggestions about
12 solving the prob- -- the problem.
13 And they are in the making of -- We got a RFP
14 the other day about some of the prime contractors
15 discussing contracting with some of the contractors in
16 the community, subcontracting with some of the
17 subcontractors in the community.
18 So it just hasn't come from -- like, it's not
19 all formed yet. But, you know, it's in the formative
20 stages right now.
21 So Mr. Campbell told me to let you -- asked me
22 to let you know that this will be in print form at the
23 next RAB meeting, and he apologized for not being able
24 to --
25 MS. PENDERGRASS: When is the next meeting?

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1 MR. MASON: The next RAB -- The next Economic
2 meeting is -- I have it. I have it. Go on.
3 MS. PENDERGRASS: Okay. Well, if we could just
4 put it up on the board as soon as you do.
5 MR. MASON: Okay.
6 MS. PENDERGRASS: Any -- anything else that
7 you --?
8 MR. MASON: No. That's -- that's it.
9 MS. PENDERGRASS: Okay.
10 Did we forget any --?
11 MR. MASON: Oh, one thing. One thing. I'm
12 sorry.
13 And Mr. Campbell also wanted me to let you know
14 that all those that he would invite to the Economic
15 Committee that he would probably e-mail.
16 MS. PENDERGRASS: All right.
17 Is there any other committee that I overlooked?
18 I'm sorry.
19 MS. LOIZOS: Hi. The Tech Committee met on the
20 10th of April, and Barbara Bushnell had invited a
21 speaker from the Public Utilities Commission to come and
22 give a presentation. So that was the majority of our
23 meeting.
24 She -- They were talking about this
25 feasibility study that the PUC is doing for

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1 decentralized wastewater treatment at the Shipyard.
2 They are looking at ways that in the future they can --
3 so that they would no -- wouldn't have to use the
4 Southeast Wastewater Treatment Plant. They could
5 actually treat the wastewater and reuse some of it here
6 on the Shipyard.
7 I think they are actually going to give a
8 presentation at the RAB -- to the RAB at some point. So
9 I'm not going to give you too much information about
10 that, and it's all in our minutes. So that's it.
11 MS. PENDERGRASS: And your next meeting . . . ?
12 MS. LOIZOS: Oh, right. I think it's set for
13 the 7th, Wednesday, the 7th, at the library.
14 MS. PENDERGRASS: Wednesday, the 7th, at the
15 library what time?
16 MS. LOIZOS: Oh. Six p.m.
17 MS. PENDERGRASS: Thank you. I'm sorry to rush
18 us through there.
19 So if we can, we have -- to stay on schedule,
20 we have ten minutes to do the rest of Miss Lowman's
21 presentation, or the option is to continue with some
22 questions and invite her back to -- at another time.
23 The time element is at your pleasure.
24 Mr. Co-Chair?
25 MR. MANUEL: I have a question.

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1 MS. PENDERGRASS: I'm sorry. Yes.
2 MR. MANUEL: I have a question. Approximately
3 how much time would it normally take her to do the rest
4 of her presentation?
5 MS. L. LOWMAN: Take me about thirty minutes to
6 do the whole thing.
7 MR. MANUEL: Okay. Well, I have to make a
8 motion, then, to go on with the questions. I think
9 other people had questions and then just invite her back
10 so that -- because what the rest of her presentation
11 represents there's going to be questions on that too.
12 MS. L. LOWMAN: Let me --
13 MR. MANUEL: So --
14 MS. L. LOWMAN: Let me say what the rest of the
15 presentation was: A building-by-building, site-by-site
16 overview of the radiological work we have done so far at
17 Hunters Point. It will take a long time to go through
18 all the sites. There's over 70 sites. So we --
19 MS. PENDERGRASS: I guess --
20 MS. L. LOWMAN: So --
21 MS. PENDERGRASS: We have someone who's made a
22 motion to ask Ms. Lowman back. We haven't had a second
23 on that.
24 MS. FRANKLIN: I second the motion.
25 MS. PENDERGRASS: But first before we can move

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<p>1 forward with that motion, I think we need to figure out 2 from the co-chairs if that's all right and with Miss 3 Lowman of her availability. 4 MR. MANUEL: Well, from what I understand, she 5 won't be able to be here at the next meeting, but a 6 representative can come in her -- her stead. 7 But my -- my only -- my only issue was the fact 8 that there won't be enough time for people to get the 9 full benefit. 10 MS. PENDERGRASS: I understand. 11 MR. MANUEL: Doesn't make sense -- 12 MS. L. LOWMAN: We have an option. We can do 13 the questions, or I can hit a couple of the -- 14 (Simultaneous colloquy.) 15 MS. L. LOWMAN: -- doing work right now. But I 16 won't be able to do them justice. 17 MS. PENDERGRASS: You can't do the full -- 18 MS. L. LOWMAN: No, I can't, no. 19 MS. PENDERGRASS: So we did have several people 20 in the audience that wanted to ask additional questions 21 about your previous presen- -- 22 MS. L. LOWMAN: Okay. 23 MS. PENDERGRASS: -- tation. But I -- 24 MS. L. LOWMAN: Go on. 25 MS. PENDERGRASS: I want to make sure we get it</p> <p>Page 93</p>	<p>1 MR. MASON: Marie -- 2 MR. MANUEL: Marie Franklin. 3 MR. MASON: -- Franklin. 4 MS. PENDERGRASS: All right. Also, we have a 5 second to the motion to invite Miss Lowman back or 6 someone from her staff back to the May meeting. All in 7 favor of that motion? All in favor? 8 THE BOARD: Aye. 9 MS. PENDERGRASS: Three, four, four people. 10 All opposed or wanted something different? We 11 have four people opposed to that. 12 MR. MANUEL: We got five minutes. 13 MS. PENDERGRASS: So -- 14 MR. MANUEL: Three, four minutes. 15 MS. PENDERGRASS: Okay. Did we have any 16 abstentions on that? We have a tie. So I don't know 17 what -- 18 MS. RAB MEMBER: Well, you . . . 19 (Simultaneous colloquy.) 20 MS. PENDERGRASS: Just a moment. 21 Mr. Mason? Would you please vote on the motion 22 on the floor, which is to either have Miss Lowman back 23 in May to do this or not. 24 MR. MASON: Can't we complete it tonight? 25 MR. MANUEL: Well, it's up for discussion</p> <p>Page 94</p>
<p>1 down when you will be back to do the rest of your 2 presentation or to discuss that. 3 MS. L. LOWMAN: There will be someone from my 4 office that will come in May. It won't be myself. 5 Because of the HRA schedule right now, it doesn't look 6 like I will be attending. 7 Certainly, June is a possibility. But I -- you 8 know, I can't confirm that right now. 9 MS. PENDERGRASS: What's the pleasure of the 10 Board? June all right or do you want May? 11 MS. LOIZOS: I was wondering, do you have a 12 presentation -- I mean, a copy of your presentation 13 slides prepared for us? And if so, are they 14 self-explanatory at all? 15 MS. L. LOWMAN: We didn't bring copies. 16 MS. LOIZOS: Oh. 17 MS. L. LOWMAN: So that was a mix-up on our 18 part. We kind of got -- 19 MS. PENDERGRASS: So -- 20 MS. L. LOWMAN: -- wires crossed. 21 MR. MANUEL: Probably down to five minutes now 22 MS. PENDERGRASS: Yeah. We do have a motion on 23 the floor. We had a second to that? No. 24 MR. MANUEL: We did have a second. 25 MS. PENDERGRASS: Oh. Who seconded it?</p> <p>Page 94</p>	<p>1 really for the last three minutes. I mean, that's where 2 we're at here. What do we do now for the last three 3 minutes that we got? I mean -- 4 MS. PENDERGRASS: We are following the process; 5 and the longer it takes with people's sidebars, the 6 longer the process. 7 So can we have a vote, Mr. Mason, so that we 8 can break this tie, please? 9 MR. MASON: We'd like her back in June. 10 MS. L. LOWMAN: Thank you. 11 MS. PENDERGRASS: So not in June but in May. 12 But -- okay. 13 So someone from your office can be here in May? 14 MS. L. LOWMAN: Someone from my office will be 15 here in May. 16 MS. PENDERGRASS: Okay. 17 And Ron, you'll put that on the agenda? 18 MR. KEICHLINE: Yes. 19 MS. PENDERGRASS: All right. 20 MS. ASHER: Well, I'd like to make a motion to 21 stay and have you do your presentation. It's on the 22 agenda. I mean, I -- I have -- I don't know. Do I have 23 a second on that? 24 MR. BROWN: I second it, 'cause I'd like to 25 know where all this --</p> <p>Page 96</p>

1 MS ASHER: I want to know --
2 MR. BROWN: -- radiological material is coming
3 from.
4 MS. PENDERGRASS. Well, how about -- how about
5 a happy medium here? And for those of you who can't
6 stay for the rest of the presentation, she will be back
7 to kind of do an overview at the May meeting and ask
8 more questions; and for those of you who can stay
9 tonight, Miss Lowman is here, and we can finish the
10 presentation. That's entirely up to you. Would that
11 work?
12 MR. MASON: Well, I thought -- I thought --
13 (Concurrent colloquy by Mr. Manuel.)
14 MR. MASON: -- be back in --
15 MR. MANUEL: -- motion --
16 MR. MASON: -- at the next RAB meeting
17 MS. PENDERGRASS: She can't. She won't.
18 She --
19 What about June?
20 MS. L. LOWMAN. Well, I'll probably be here in
21 June, but May I can't. Right now it doesn't look like I
22 can come in May.
23 MR. MANUEL: Someone from her office can come.
24 MS L. LOWMAN: Someone else will be here,
25 but --

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1 MR. MASON. So I'm hoping you understand that
2 Virginia is a long ways.
3 MS PENDERGRASS Virginia?
4 MS. L. LOWMAN: Airplane time.
5 MR. MANUEL: Yeah.
6 MR MASON: But, you know, if you could do it
7 tonight, I'm willing to stay.
8 MS. L. LOWMAN: Okay. It's up to you.
9 MS PENDERGRASS Okay. We have another motion
10 on the floor, which is to continue on tonight in
11 addition to having her come back and/or someone from the
12 office in May.
13 So all in favor of that motion, "aye"?
14 THE BOARD: Aye.
15 MS. PENDERGRASS: One, two, three, four, five.
16 Those opposed?
17 One, two. Okay.
18 Any abstain?
19 MR. RAB MEMBER: Yes.
20 MS. PENDERGRASS: So one abstention. So it
21 sounds like we have a group that wants you to stay here.
22 MR KEICHLINE: We do need to take a break,
23 though.
24 MS PENDERGRASS: We do need to take a break,
25 you're right, for the court stenographer.

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1 Okay. So you've all spoken. So those of you
2 who have to leave now, leave. And those of you who
3 would like to stay, we'll have the presentation in ten
4 or fifteen minutes.
5 Thank you, Christine.
6 (Recess 7.58 p.m. to 8:05 p.m.)
7 MS. PENDERGRASS. So we're back in or- -- in
8 order.
9 Let me just clarify one thing. First off, the
10 official RAB meeting has ended. Now we're in kind of an
11 overtime extension. We are -- This is strictly
12 education part at this point. So we can't vote on any
13 motions or anything like that.
14 MR. KEICHLINE: Only if we have less than one
15 third.
16 MS. PENDERGRASS: Okay.
17 MR. KEICHLINE: So with eight people is one
18 third of the RAB. So we need a show of hands of RAB
19 members to see if this is still an official meeting.
20 MS. PENDERGRASS: One, two, three, four, five,
21 six, seven, eight. We got eight.
22 MR. KEICHLINE. Okay.
23 MS. PENDERGRASS: Okay. All right. So
24 actually --
25 MR. KEICHLINE If anybody leaves . . .

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1 MS. PENDERGRASS. However, however, it will
2 just make sense, though, that we keep this to
3 informational only and do questions.
4 So we're going to limit this to stop at 7:30
5 MS. ATTENDEE: 8:30?
6 MS PENDERGRASS Eight -- I'm sorry. 8:30.
7 So --
8 MR. ATTENDEE: What time is it now?
9 MS. L. LOWMAN: I'll do the best I can to get
10 through everything very quickly.
11 Before I start, Lea had something she wanted to
12 announce. It's radiation at Hunters Point Shipyard. It
13 is a meeting April 30th, 6:30 p.m. to 8:30 p.m., at the
14 Milton Meyers auditorium. There's an address here.
15 It's to discuss radiation and the state of the HRA at
16 Hunters Point.
17 So there's a number on this flier You can
18 call Arc Ecology if you want more information. I'm
19 making the announcement for her. And that's to do with
20 the former na- -- naval -- you put "national," honey,
21 but it's Naval Radiological Defense Laboratory.
22 MS. LOIZOS: I didn't make the flier.
23 MS L. LOWMAN. That's okay. The facility's
24 located at the current site of Mariner's Village. If
25 you want info, Lea has it. Okay.

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1 MS. SUMCHAI: I'd like to invite Miss Loizos in
2 the future -- you know, if you have events -- events
3 like this, it would be great, you know, for us to be
4 able to have the subcommittee involved with the
5 invitation. But it's wonderful always to see Arc
6 Ecology doing good things in the community.
7 MS. LOIZOS: Thank you. Yeah, I appreciate
8 that. I -- I agree with you.
9 MR MASON: I got a flier here.
10 MS. L. LOWMAN: I got -- okay. I got extra
11 fliers if anybody's interested.
12 Okay. We're going to move on.
13 This briefing is status of the MARSSIM
14 radiological surveys from the Phase 5 investigation.
15 I'm going to kind of go through it very quickly. It
16 involves a lot of buildings and a lot of sites And
17 Marty is my audiovisual man with the pointer since we
18 don't have it on computer and I can't use maps that way.
19 The first ones we'll talk about are on
20 Parcel B. Parcel A, buildings and surveys are all
21 complete at this time as far as anything we have
22 currently on our status report.
23 So we'll start with Parcel B. We had
24 Building 103, Building 113-A, Building 113, Dry Dock 6,
25 and Dry Dock 6 sediment sampling. Hold on here. And

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1 those were all of the ones for Parcel B that we did
2 surveys in.
3 There was Building 114 -- oh, wait. There
4 was -- no. 114, but that was an administrative building
5 and considered a nonimpacted site for radiological.
6 All of those surveys are complete. We did not
7 find any contamination. The reports are what we call
8 98 percent complete. When we say that, New World
9 Technology is doing the report.
10 When they're 95 percent complete, that means
11 that they have finished the report and they are having
12 an internal -- they have finished all the survey work
13 and are compiling the data and the report and are doing
14 the MARSSIM statistical analyses
15 When they are 98 percent, they have finished
16 the analyses, and New World Technology is doing the
17 actual internal review before it comes to RASO.
18 So those are pretty much well done. We're
19 going along there.
20 We have Building -- whoa, whoa, whoa here --
21 Building 274 -- we'll move to Parcel D -- Building 274,
22 Building 313 and 313 alpha, Building 332, Building 351
23 and 351 alpha, Building 3 -- the area behind 351 between
24 Buildings 323 and 324, which is IR 34. We have
25 Building 351 crawlspace, Building 364 and the 364

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1 crawlspace, the Building 364 trench --
2 MS. OLIVA: Pardon me. What was that?
3 MS. L. LOWMAN: Trench, trench behind 364 --
4 I'll get to these. I'll -- I'll do a little more detail
5 here in just a second -- Building 351 and 3 -- 351 alpha
6 and 364. Let's start with those.
7 274 . . . the other one. 274 is complete. The
8 report is 98 percent complete. We found no
9 contamination.
10 Doing summaries here. I'm trying to do them
11 quickly.
12 313 and 313 alpha. We found no conta- -- these
13 buildings were demolished. They are no longer there.
14 We found some -- a manhole that was in the site of the
15 313 alpha building, and there was contamination in that
16 manhole. We have removed that manhole and the
17 surrounding soil. The piping that we saw on maps that
18 connected to that we could not find. It was no longer
19 there. But the manhole has been removed, and that area
20 is 95 percent complete.
21 Building 332 we found slightly elevated levels
22 of cesium-137 and europium-152. We remediated that
23 area, and that report is 95 percent complete. The waste
24 is disposed.
25 351, let's go to Building 351. We did finish

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1 the surveys in that area and found no contamination, and
2 the report is 95 percent complete.
3 The crawlspace, however, under 351 alpha we did
4 find contamination. We have removed contaminated piping
5 and soil. It has been disposed of. We finished a
6 Class 1 survey, and the report is at 95 percent.
7 Oh, jeez. The area behind 351 between 323 and
8 324 we found some elevated cesium-137. We have
9 completed characterization and remediation that is
10 95 percent complete. Jeez.
11 364 and the 364 crawlspace, we found
12 contamination throughout 364. We have remediated that.
13 We've disposed of all the waste, and the Class 1 surveys
14 are complete. The asbestos has been removed, and we are
15 at 95 percent. That report is being compiled.
16 MS. SUMCHAI: Can I just stop you just for a
17 second? When you say you found elevated cesium-137, it
18 is above background levels?
19 MS. L. LOWMAN: No. It is above 0.13 pico
20 curies per gram, which is our -- well, it is actually
21 our limit for remediation.
22 MS. SUMCHAI: So that means it's above
23 background if you're remediating
24 MS. L. LOWMAN: No, I'm not saying it's above
25 background. I'm saying that we have an EPA -- we have

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1 I worked with EPA and we have established what we call a
2 PRG, or a preliminary remediation goal, of 0.13 pico
3 curies per gram. I'm not saying that 0.13 pico curies
4 per gram is background, but I'm saying that that is the
5 limit that we are remediating to.
6 MS. LUTTON. What's background?
7 MS. L. LOWMAN: It varies from site to site.
8 You'd have to look at the reference areas for each site.
9 You'd have to look at the instruments that we used to
10 take the background readings, the efficiencies of the
11 instruments, and the weather conditions of that
12 particular day. There's a lot of variance.
13 But our remediation goal, our cleanup goal, is
14 0.13 pico curies per gram of cesium. There's a very low
15 level. We cannot see that level with a survey
16 instrument. You have to do actual lab sample processing
17 to detect that level of cesium. And it is a very, very
18 low level.
19 MS. SUMCHAI. Miss Lowman, while we're going --
20 MS. PENDERGRASS: I'm going to ask you to -- to
21 continue on without the questions.
22 MS. L. LOWMAN: Right, 'cause I have a long
23 ways to go.
24 MS. PENDERGRASS: Keep going. I'm sorry.
25 MS. L. LOWMAN: Okay. All right.

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1 We are 364. We remediated that. That was
2 mostly cesium contamination, although we did find some
3 radium in there also.
4 There was a contaminated pipe behind 364, and
5 we have remediated that also and finished our Class 1
6 surveys, disposed of the waste, and we are 95 percent
7 complete.
8 We have found some contamination in the
9 manholes for the storm sewer -- the storm drain system
10 and the sanitary sewer system outside of 364 on Cochrane
11 Street and in the manhole between 364 and 365. There
12 isn't really a street name there. It's more like an
13 alleyway.
14 We are tracing those lines and tracing that
15 contamination. We have not completed tracing it. We
16 don't know the extent of it, and that action is
17 currently pending.
18 365 building has been cleared. That report is
19 95 percent complete. We found no contamination in that
20 building.
21 366. That is the building that we have surveys
22 going on. They are ongoing work. We are coordinating
23 the artists in that building. We set up schedules with
24 them to have access to their -- I think we'll call them
25 cubicles. Is that what you call them? Okay. We only

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1 I have maybe 40 percent of that survey done. I don't have
2 all the information from that survey. But that is an
3 ongoing survey that we are currently doing.
4 Building 411, which is across the street from
5 36 -- 365, right there, very large building, we found
6 some slightly elevated levels of radium, and we found
7 them to be within the release limit for that building,
8 and that building is 95 percent complete
9 Building 383, the only thing we found in 38- --
10 383 were some night-vision devices that were being used
11 by the police department out there and being stored in
12 that building. They had thoriated lenses in them with
13 some thorium in them. I believe we returned those to
14 the police department, didn't we? Yes. And so there
15 was no residual radiation in that building.
16 The Gun Mole piers and Piers 15, 16, 17, 18, 19
17 and 20, we have completed surveys on there. We found
18 slightly elevated levels of cesium, and we remediate --
19 remediated those areas. We have done a Class 1 survey
20 of the remediate -- remediated areas, and we consider
21 that one complete.
22 The former NRD L site, which is -- we call it
23 that because on a map, that's all it says, is "NRDL,"
24 and it's a square drawn on a 1949 map. I believe it's
25 '49, isn't it? And it's off of Mahan Street. We found

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1 cesium contamination in this area. We have remediated
2 that cesium contamination and disposed of it, and that
3 one is also 95 percent complete. And that takes care of
4 Parcel D.
5 Parcel C, we have Building 211. It's -- We
6 formerly stored some low-level radioactive waste in that
7 building. We now have another storage site in Parcel E,
8 so we are releasing this building. We found one
9 slightly elevated level which we believe is thorium
10 contamination. We are going to be remediating that
11 area, and that is still in process.
12 Building 214 and 272, we have finished those.
13 We found no contamination, and those reports are
14 98 percent complete.
15 Building 224, we did Class 3 surveys in there.
16 We found one elevated sample in those; and RASO has
17 reviewed that, and we are -- we are moving forward on
18 that report.
19 Building 241, we -- that was the foundry for
20 the Shipyard. We found elevated areas that mainly
21 contain firebrick or potassium nitrate. We have removed
22 the firebrick and the potassium nitrate, completed our
23 surveys, disposed of the waste. We are 95 percent
24 complete.
25 Building 253, we are working extensively in

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1 that building. We have found contamination on every
2 floor. We are currently removing the ventilation system
3 off of the third floor. We found a calibration range on
4 the third floor. There seems to be radium or cesium
5 contamination at various levels in the building. There
6 is some on a ledge outside the building. Work on that
7 is ongoing.
8 Do we have a percentage at all, Daryl? Maybe
9 20 percent?
10 MR. DeLONG: [Nodding] Maybe.
11 MS. L. LOWMAN: Yeah? Maybe?
12 We still have a lot. It's a very, very large
13 building, and we still have a lot of work to do in that
14 building.
15 MS. OLIVA: I really need to ask a question.
16 MS. L. LOWMAN: No, no, no. Let me try to get
17 through this, please.
18 Building 271 we did -- found some radium
19 contamination, and we removed that, disposed of the
20 waste, finished the Class 1 survey. We are clean on
21 that one. We are at 98 percent on the report.
22 Okay. Dry Dock 2, we found some radium devices
23 on -- on the dry docks, Dry Docks 2, 3, and 4. All of
24 those, they were hand-powered phone jacks that had a
25 radium -- radioluminescent device associated with them.

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1 We have removed those, did the surveys for those dry
2 docks, and those are complete. We found no other
3 contamination.
4 Building 40- -- we are moving on to Parcel E.
5 We are making great progress.
6 Building 406, we found elevated levels of
7 radium 226. We have characterized and remediated that.
8 And now we are using that building for storage of
9 low-level radioactive waste. So that building is not
10 being released at this time.
11 Building 414. Find 414 for me. Thank you.
12 Class 3 surveys are complete. We have to remove some
13 gravel and do some additional investigation and -- no.
14 I take it back. We did do the additional investigation.
15 No elevated levels were found, and we are doing the
16 final report.
17 The buil- -- The 500 building series.
18 Building 500. These buildings are all demolished. But
19 the foundations of the buildings remain at the site. We
20 have 507, 506, 508, 509, 510 and 510 alpha --
21 MR. BROWN: Can you say that again?
22 MS. L. LOWMAN: Okay. 506, 507, 508, 509, 510,
23 510 alpha, 517, 520, 529, shack 79, and shack 80.
24 MR. OFFENHAUER: They are all in this area
25 [indicating].

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1 MS. L. LOWMAN: They are all in that one area.
2 They -- These are all torn down. The building -- The
3 500 building -- buildings' foundations are still there.
4 Originally we did some Class 3 surveys on these
5 sites. We found contamination on the 501 si- -- 507
6 site. Excuse me. And we have found additional
7 historical information on all of those sites. We are
8 going back to do Class 1 surveys on those sites.
9 We have found contamination with radium in it
10 around the 520 site, and we are only at 10 percent
11 complete on those sites. They are in Parcel E. Those
12 were the main buildings for NRDL before they moved into
13 815.
14 There's a underground storage tank area.
15 There's piping throughout the area that we are going to
16 have to look at. That's going to take a considerable
17 amount of effort to get those finished.
18 Building 701 site, which means building's
19 demolished. We completed a Class 3 survey. No elevated
20 levels were found. And that report is in its final
21 stages.
22 Building 704 and the animal pens. This was
23 found on an old map. It was where they stored
24 radioactive material and animals used by NRDL before
25 they moved it over by the 500 buildings. So this is

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1 when they were very first doing their work. We have not
2 started surveys on that site yet. So we're at -- we're
3 at zero percent for that site.
4 Building 707. Okay. There's a 707 area, we
5 call it. There's a 707 triangle. We call it a triangle
6 because it's boarded by streets on three sides that
7 forms a triangle.
8 So there is the Building 707. There's the
9 Building 707 concrete pad which had some animal pens and
10 things associated with it. There's the actual triangle
11 itself, which is all the remaining property. And there
12 are the drain lines associated with that property.
13 The Building 707 itself has been surveyed, and
14 the asbestos has been removed. We found no
15 contamination in that building, and it is 95 percent
16 complete.
17 The concrete pad, we have remediated three
18 areas previously. We have mowed the area, removed
19 debris, and completed surveys. And we have found some
20 elevated cesium levels underneath the concrete pad.
21 The triangle, we are still working on that one.
22 We are at 75 percent complete. And we are preparing
23 maps with correlated data so that we can do a better
24 review of the information
25 We have found some contamination in the 707

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<p>1 drain lines. There were drain lines that came from the 2 pens and from that area. We are having a problem 3 tracing those lines because they are broken. They are 4 actually physically broken, and we can't get the trace 5 through, so we're going to have to regroup on that one 6 and figure out what we're going to do. We're at 7 10 percent complete on that action. 8 THE REPORTER: Excuse me. 9 MS L LOWMAN: She has to change paper, and I 10 have to get a drink of water. 11 MS. SUMCHAI: Quickly, is the --? 12 THE REPORTER: We're not on the record. 13 (Reporter refills paper tray during 14 off-record colloquy.) 15 MS L. LOWMAN: Okay. We are ready. 16 Building 708 is right there near there. We 17 have finished that report, found -- did the surveys, 18 found no contamination. 19 Building 810 and the loading dock of 810 and 20 surrounding area: We have contamination surrounding the 21 loading dock. We are going back into that building and 22 surveying again a cesium contamination. 23 IR-121. We have finished the characterization 24 survey of that -- of that area, including the landfill 25 cap. We have maps that were -- RASO is looking at. We</p> <p style="text-align: right;">Page 113</p>	<p>1 locations. 2 MS. OLIVA: Question 3 MS. PENDERGRASS: Okay. Take a break -- a 4 breath. 5 MS. L. LOWMAN: I got it. 6 MS. PENDERGRASS: Okay. It is now 8.30 7 and . . . question, but also Dr. Sunchai. Do that real 8 quick? 9 MS. OLIVA: Okay. 10 MS. PENDERGRASS: Quick one question. 11 MS. OLIVA: Your boss that came out here, the 12 nice man -- 13 THE REPORTER: I'm sorry. Would you start 14 over. 15 MS. OLIVA: Your boss, Commander Fragoso, who 16 came out here, stated that -- make sure I've got the 17 right building here -- 253 is the telescope building; am 18 I correct? 19 MS. L. LOWMAN. [Nodding]. 20 MS OLIVA That the process of doing that kind 21 of remediation would be a form of scraping of some sort? 22 He guaranteed us in that meeting that it would be 23 tented, and we haven't seen any tent, any tents. We 24 have seen a lot of bins up there. And you know, there's 25 an incredible wind that comes this way [indicating], and</p> <p style="text-align: right;">Page 115</p>
<p>1 are going to have to go and remove some devices. So we 2 are at 80 percent. We have not done any remediation 3 there yet. 4 IR-02, it's a big bay fill area. There -- We 5 know there's a radium dial disposal area in there. We 6 have not started any work on that one. It's a very 7 large area. It will take us a considerable amount of 8 time to get that characterized and remediated. 9 IR-04, that is the former scrap yard. We have 10 found cesium and radium contamination in this area. We 11 are continuing to work on it. It's about 40 percent 12 complete. We keep finding more contamination, so that 13 area keeps growing and growing and getting bigger, 14 because we find contamination on the boundary on the 15 outside boundary so we expand it by 10 meters. 16 MS. OLIVA: What parcel is that, Laurie? 17 MR. BROWN: "E." 18 MS. L. LOWMAN: That would be "E." 19 And the last, but not least, is the shoreline. 20 It's approximately a mile and a half of shoreline that 21 runs from the finger piers at the south up into Yosemite 22 Creek. We have done characterization on that survey, 23 but we have -- on the shoreline, excuse me, but we have 24 not started any remediation yet. We have found some 25 elevated levels throughout the shoreline at various</p> <p style="text-align: right;">Page 114</p>	<p>1 we are Shipyard tenants. 2 Next question. I have one more question 3 MS. PENDERGRASS: You said one 4 MS. OLIVA: I'm sorry. 5 MS PENDERGRASS: Let her -- let her answer 6 that while you're -- 7 MS. OLIVA: Okay. I'll get you -- 8 MS. PENDERGRASS: We'll come back to you. I 9 promise. 10 MS. L. LOWMAN That's what I get for sending 11 the boss, you know. I don't know anything about a tent. 12 Pretty much the work we are doing inside the 13 building is contained. We are removing vents right now 14 and pieces of equipment with contamination on them. 15 They are wrapped in plastic before they leave the 16 building. Right now I don't see any reason that we 17 would be tenting anything for the work that we are doing 18 right now. 19 MS. OLIVA: Because of the wind flow and 20 because of the area where there was a vent of some sort 21 in the roof and the way -- 22 MS L LOWMAN: We are not working on the roof 23 right now. We are working on the third floor. So -- 24 MS. OLIVA. Why are the bins on the roof? 25 MS. L. LOWMAN: We don't have bins on the roof.</p> <p style="text-align: right;">Page 116</p>

1 MR. MARTIN: There are no bins on the roof.
2 They may be part of the building.
3 MS. L. LOWMAN: They are parked down on the
4 ground level.
5 MS. OLIVA: There's lumps on the roof.
6 MS. L. LOWMAN: There's lumps on the roof?
7 MS. OLIVA: Lumps.
8 MS. L. LOWMAN: Well, the bins are really big.
9 MS. OLIVA: Well, these are really big and they
10 are blue.
11 MS. L. LOWMAN: On the roof, Daryl? 253 on the
12 roof. Do you have bins on the roof?
13 MR. DeLONG: No. There's another little
14 building that goes up.
15 MS. OLIVA: Well, these are multiple -- or they
16 were there. I'll just put it there.
17 MR. BROWN: Right, right.
18 MS. OLIVA: They were there.
19 MS. L. LOWMAN: We did do some scraping on the
20 roof.
21 MS. OLIVA: Okay. Now, there we go.
22 MS. L. LOWMAN: We did do a remediation on the
23 roof. Everything was bagged and controlled.
24 MS. OLIVA: It's not a question of being bagged
25 and controlled. Any scraping that's done we were

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1 guaranteed by Commander Fragoso --
2 MS. L. LOWMAN: Oh, yeah?
3 MS. OLIVA: -- that it would be tented because
4 of the wind flow and because we are down hill from all
5 that. There's 300 of us that are downwind from that.
6 MS. L. LOWMAN: Okay. I have not read the
7 transcript from that. Do you have what he said?
8 MR. KEICHLINE: I do.
9 MS. L. LOWMAN: Oh, that would be wonderful.
10 MR. KEICHLINE: Section here. He said normally
11 it's done in a tent.
12 MS. L. LOWMAN: Okay. Normally it's done
13 inside a tent to remove -- to con- -- contain the dust.
14 MS. OLIVA: The dust is the most important
15 thing that we have to deal with here.
16 MS. L. LOWMAN: Okay.
17 MS. PENDERGRASS: So is that something --?
18 MS. L. LOWMAN: Are we doing air monitoring?
19 MR. DeLONG: Yes, continuous.
20 MS. L. LOWMAN: Yeah, we do continuous air
21 monitoring.
22 MS. OLIVA: But we don't know what the air
23 monitoring results are because --
24 MS. L. LOWMAN: But they will be in the report
25 when it comes out.

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1 MS. OLIVA: That's all well and good if this is
2 done. But we have been in our studios during this whole
3 period.
4 MS. L. LOWMAN: Okay. Well, we haven't been
5 working there very long.
6 MS. OLIVA: It doesn't matter.
7 MS. L. LOWMAN: Well, let me finish. I
8 understand that -- your concern. I really do.
9 MS. OLIVA: Yeah.
10 MS. L. LOWMAN: Right now, you know, I can't
11 address what he said prior.
12 Right now the work that we are doing currently
13 is inside the building. Everything is being wrapped
14 before it leaves the building.
15 I can't -- I can't imagine -- Having just been
16 up there yesterday and walking the work site, I can't
17 see a way where the contamination could leave the inside
18 of the building unless it is wrapped and put directly
19 into the containers.
20 MS. OLIVA: Okay, but I'd like you to check on
21 the scraping that was --
22 MS. L. LOWMAN: I will check on the scraping --
23 MS. OLIVA: And -- okay, and that --
24 MS. L. LOWMAN: -- and the air monitoring that
25 was done --

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1 MS. OLIVA: The air monitoring and potassium --
2 MS. PENDERGRASS: All right. So -- so perhaps
3 we can make sure that that's covered or addressed in --
4 when -- the next month --
5 MS. L. LOWMAN: Right, right.
6 MS. PENDERGRASS: -- their questions.
7 One last question, and I think Dr. Sumchai had
8 that question.
9 MS. SUMCHAI: Oh, I will defer to Jesse. I
10 want to restate a concern about the standard clearance,
11 why pick a standard, you know, that is currently being
12 for the inside building.
13 MS. L. LOWMAN: For the inside of the building?
14 MS. SUMCHAI: Yes.
15 MS. L. LOWMAN: Okay.
16 MR. MASON: Maybe I'll give you a way out of
17 it, because we usually do some scraping sometimes for
18 pesticides keeping it from going outside. What we do is
19 we plastic the windows. Did you guys do any of that?
20 MS. L. LOWMAN: No, not for the work we are
21 doing right now.
22 MS. OLIVA: Inside
23 MS. L. LOWMAN: It is in -- inside a room
24 inside a room inside a building. I mean, this is not
25 in -- even in an open area that you -- wind would blow

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1 through.
2 I have been through this building just
3 yesterday, and we will be taking the material out of the
4 building through a window because the elevator is no
5 longer operational. As a matter of fact, it crashed.
6 It actually fell one day when Triple A was using it.
7 But it's no longer operational. So it will be coming
8 out through the window, but it will be wrapped when it
9 comes out.
10 MS. OLIVA: And can I also ask --
11 MS. PENDERGRASS: No. Miss Oliva, one moment
12 First of all, you -- one of your -- I guess --
13 MS. L. LOWMAN: This is Daryl.
14 MS. PENDERGRASS: He had to clarify it, and
15 then that's the end of our questions tonight. I think
16 you all are welcome to talk with Miss Lowman after here
17 MR. DeLONG: They can probably hear me.
18 I -- I'd just like to clarify something for
19 you. The ventilation system that we are currently
20 working on is within a room that is contained, and we
21 are drawing HEPA ventilation into the room, and we're
22 conducting air sampling, and the people are wearing
23 protection.
24 MS. OLIVA: I'm looking at the roof scraping.
25 MR DeLONG: The roof was very low-level

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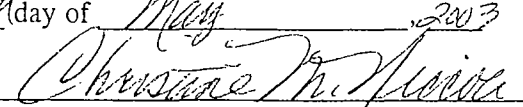
1contamination. It was confined in the roofing material
2 MS. L. LOWMAN. I will look into it and I'll
3let you know. I will try to get that information for
4you.
5 MS PENDERGRASS: Thank you all for your
6patience, and thank you for the presenters who stayed
7over. Thank you.
8 (Off record at 8:35 p.m., 4/24/03.)
9 ---oOo---

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CERTIFICATE OF REPORTER

I, CHRISTINE M. NICCOLI, Certified Shorthand
Reporter of the State of California, do hereby certify
that the foregoing meeting was reported by me
stenographically to the best of my ability at the time
and place aforementioned.

IN WITNESS WHEREOF I have hereunto set my hand
this 23rd day of May, 2003


CHRISTINE M. NICCOLI, C.S R NO. 4569

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Hunters Point Shipyard HRA Update

22-April-2003

Laurie L. Lowman
Director, Naval Low-Level
Radioactive Waste
Program



Archive Review

- All archive reviews complete
- All material received except for copies from LLNL
 - Supplemental material from DOE and DTRA may be used
- Declassification of records at NARA College Park being requested
- Problems encountered:
 - Records checked out by DOE or DTRA
 - Documents destroyed because of age

4/24/2003

HPS

2



Database Process

- 1850 Documents obtained and scanned into .pdf files
- Identifying information from documents entered into RASO database daily
- As of April 18, 1240 of 1850 records have been given detailed review
- Documents vary in length from 1 to 300 pages

4/24/2003

HPS

3

NAVSEA

Additional Records

- 350 RASO records being entered by NWT (80% complete)
- 750 electronic maps being entered at RASO (20% complete)
- 300 documents from NARA College Park being entered by RASO (0% complete)
- Current projection of document total is 3250

4/24/2003

HPS

4

NAVSEA

Review of RASO Documents

- All historical documents from RASO files, including Dr. C. Sharp Cook's files have been screened and appropriate files selected
- 90% of RASO scanned documents have been entered into the database

4/24/2003

HPS

5

NAVSEA


Interview Status

- 206 responses to advertisement to date
- 161 respondents identified as potential interviewees
- Multiple attempts have been made to contact all respondents
 - 144 respondents contacted
 - 1 fax inquiry sent as only fax number provided
 - 3 telephone numbers incorrect
 - 13 emails/phone messages left with no response yet
- 19 Additional personnel identified through screening process

4/23/2003

HPS

6




Respondents by Job Type

- 60% Shipyard employees
 - Trades – HPS, Triple A
 - Radiological Controls – MINSY
- 15% NRDL
- 12% Active Duty
- 8% Family Members
- 5% Administrative

4/24/2003

HPS

7




Respondents by Area

- 40% San Francisco Area
- 25% Sacramento Area
- 15% Unknown
 - Would not provide address
- 10% Other California Locations
- 10% Outside of California
 - Out of CONUS (HI and BC)
 - ID, OR, GA, NC, VA, MD, NM, AR, NV

4/24/2003

HPS

8



Interview problems

- Multiple attempts required to reach respondents
- Interviews are very time-consuming
- Time zone difference
- Many are older and interviews include interface with spouse or children

4/24/2003

HPS

9

NAVSEA

Face-to-Face Interviews

- 26 Respondents selected
- Chosen by 3 members of HRA team based on screening information
- All types of employees included
- Starting 22 April
- Effort will continue through mid-May

4/24/2003

HIPS

10

NAVSEA

HRA Timeline

- HRA effort continues to meet established timeline
- April:
 - Complete in-depth record reviews
 - Enter document summaries into database
 - Sort documents into subject areas and time periods using database
 - Identify HRA references
- May: HRA team drafts HRA
 - Incorporate responses to Draft HRA comments
- June: Navy internal review of final draft
- July: HRA team incorporates comments from Navy review
- August: Distribution of final draft HRA

4/24/2003

HIPS

11

NAVSEA


OPERATION CROSSROADS

- Testing of two atomic weapons conducted at Bikini Atoll in summer of 1946
 - Shot Able – air burst
 - Shot Baker – underwater burst
- 4th and 5th atomic weapons ever detonated
- Navy major participant

4/24/2003

HIPS


12



Navy Involvement

- 180 Navy vessels participated as target and support ships
- Shot Baker resulted in all ships receiving some degree of contamination
- Unanticipated problem for Navy
- Initial decontamination efforts conducted at Bikini Atoll and Kwajalein Atoll
- Navy needs:
 - Return ships to CONUS
 - Ensure support ships operational


4/24/2003
HPS
13



HPS Chosen for Expertise

- SFNS chosen as closest shipyard with dry dock capability for all ship types
- Closest to some of nation's utmost expertise in atomic weapons
 - University of California support
 - Joint Task Force One's Homeport

4/24/2003
HPS
14



OC Ships return to HPS

- Ships returned to SFNS via PHNS for monitoring and/or decontamination
 - 61 Support ships
 - Less contaminated
 - Many decontaminated at other locations
 - 18 Target ships
 - More heavily contaminated
 - Last to be transported

4/24/2003
HPS
15

NAVSEA

Target Ships

- 18 Target Ships returned to HPS
 - 12 under own power
 - 6 towed
 - USS INDEPENDENCE (CV-22)
 - USS GASCONADE (APA-85)
 - USS CRITTENDEN (APA-77)
 - USS HUGHES (DD-410)
 - USS SKATE (SS-305)
 - USS SKIPJACK (SS-184)

4/24/2003

HPS

16

NAVSEA

Towed Target Ships

- Most heavily contaminated of target ships
- Presented special problems for monitors
- Contamination was present throughout the ship

4/24/2003

HPS

17

NAVSEA

Fate of 6 Towed Targets

- USS HUGHES
 - Destroyer
 - Monitored at HPS and sent to PSNSY for decontamination
- USS SKATE and USS SKIPJACK
 - Submarines
 - Monitored and experimented on at HPS before going to MINSY for decontamination

4/24/2003

HPS

18

Fate of Targets (Cont)

- USS INDEPENDENCE,
 - Aircraft carrier
- USS GASCONADE AND USS CRITTENDEN
 - Attack Transport Ships
- Three ships:
 - Monitored, experimented on and decontaminated at HPS
 - Unique problems encountered
 - Special precautions taken for HPS workers

4/24/2003

HPS

19

Towed Target Problems

- Extensive contamination throughout ship
- Many components removed from ships required disposal as radioactive waste or extensive decontamination before reuse
- Contamination presented problems not seen on other target and support ships
- Special experiments conducted to investigate treatment and disposal options

4/24/2003

HPS

20

Current Investigations

- Additional RASO assessments
 - Request records from DOE and DTRA
 - Declassification of additional records
- Investigations of additional areas considered impacted by historical research
- Ongoing investigations include isotopes of concern from OPERATION CROSSROADS

4/24/2003

HPS

21

NAVSEA

Questions/Discussion

4/24/2003

HPS

22

Hunters Point Shipyard RAB Meeting
April 24, 2003

EPA Scanner Van Report:

1) The report was completed in late March 2003 and was released to the public on April 10, 2003.

2) Copies are available here tonight.

3) USEPA Region 9 Superfund staff requested USEPA Radiation And Indoor Environments National Laboratory (R&IE) conduct the scanner van survey of September 9 through 12, 2002 as a final radiation confirmation survey for Parcel A. The scan covered all navigable roads on and immediately adjacent to Parcel A.


In addition to Parcel A, areas of Parcel B, Parcel C, and minor portions of Parcels D and E were scanned. (A map of the scanned areas is included in the subject report.) The scan covered only minor portions of Parcels D and E due to the inaccessibility of navigable roads and ongoing radiation investigation and/or remediation.

4) All of the anomalies detected during the scan were attributable to natural occurring sources at levels consistent with what would normally be found in the environment.

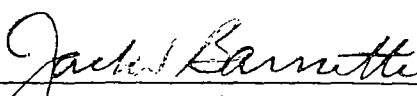
5) Based on the scan results, none of the areas which were scanned warrant further radiological investigation.

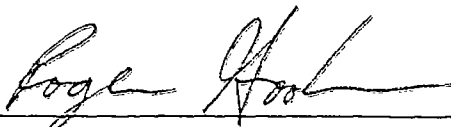
6) Steve Dean, USEPA Region 9 Superfund Technical Support Office, will attend the May 22, 2003 RAB to answer questions about the scanner van and the report.

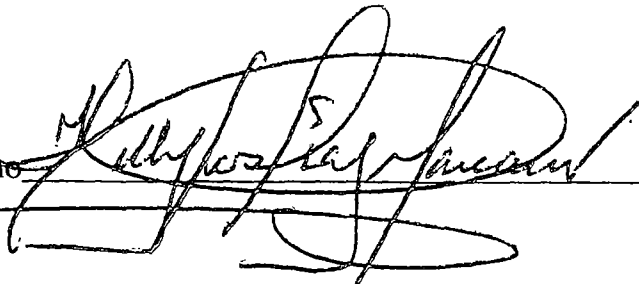
Radiological Scanner Van Survey Hunters Point Final Report


Steve Dean  3/28/03
Project Manager or Representative, USEPA Region 9
~~Reviewed: Robert Hopper 3/26/03~~
Date

Jed Harrison  26 March 2003
Laboratory Director, R&IE
Reviewed: Robert Hopper 3/26/03
Date

Jack Barnette  3/25/03
Director, CERMER (Center for Environmental
Restoration, Monitoring and Emergency Response)
Date

Roger Goodman  3/24/03
Project Lead
Date

Helly Diaz Marcane  3/25/03
Field Scientist
Date

Mark Sells  3/24/03
Project Quality Assurance Coordinator
Date

RADIOLOGICAL SCANNER VAN SURVEY
Hunters Point Naval Shipyard
California
September 9-12 2002



United States Environmental Protection Agency
Radiation And Indoor Environments National Laboratory (R&IE)
4220 S. Maryland Parkway
Las Vegas, NV 89119

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Abstract

In a response to a request from EPA Region 9 and coordinated through the Office of Radiation and Indoor Air's Radiation Protection Division, The Radiation and Indoor Environments National Laboratory (R&IE) conducted a survey of the Hunters Point Naval Shipyard in San Francisco California, with R&IE's radiological Scanner Van from September 9 through 12, 2002.

The purpose of the scan was to identify potential gamma radiation anomalies on the shipyard as a result of operations at the shipyard. There were no anomalies identified in the scan other than those attributable to what would normally be found in the environment. All gamma radiation levels were consistent with normal fluctuations in background that can be found in an unimpacted environment.

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Site History

The area in the vicinity of the Hunters Point Naval Shipyard, San Francisco is the focus of this scan. During the shipyard operations from 1870 through 1994, Hunters Point Naval Shipyard activities included shipbuilding and ship repair. From 1952 through 1969 Hunters Point was also the site of the Navy Radiological Defense Laboratory (NRDL). During shipyard and NRDL operations, radioactive materials were released onsite, including Radium 226 and Cesium-137. Remediation activities are ongoing at the site for PCBs, VOCs, PAHs, pesticides, heavy metals, and radioactive contaminants. Further historical information concerning this site is available through the Region 9 office. Region 9 has requested that the R&IE assist in evaluating a two (2) mile radius surrounding this area (within the shipyard boundaries) for potential contamination, using R&IE's Scanner Van to identify areas of elevated activity. For the purposes of this project, the vicinity of the facility is described as the area bordered by Building 144 on the North (Submarine Docks) and the former Main Gate at Crisp Avenue on the West, with Building 521 on the South (Corner of Mahan Street and J Street) and Building 219 on the East (Waterfront) which surrounds the Hunters Point Naval Shipyard, CA.

Methodology

R&IE's radiological Scanner Van was originally built under contract to the Bendix Corporation in 1980 and has recently been moved to a new Freightliner commercial delivery van chassis. It incorporates a four inch by four inch by sixteen inch sodium iodide detector shielded in such a way that it detects radiation predominantly out of the right side of the vehicle. The main scanning detector is shielded from background gamma radiation by being completely surrounded with copper and lead creating a four inch by sixteen inch "window" with a 55 degree viewing arc. This provides for a low level of background radiation, lowering the minimum detectable activity and providing for a directional "view" for the detector out to the right side of the van. This radiation detection system was developed specifically for uranium mine waste surveys (Allen 1981) but has been used by R&IE to find anomalous radiation sources from a variety of sources. The sodium iodide radiation detector and shield is detailed in the original engineering drawing (figure 1). The detector is coupled to a photomultiplier tube and mounted inside the shield.

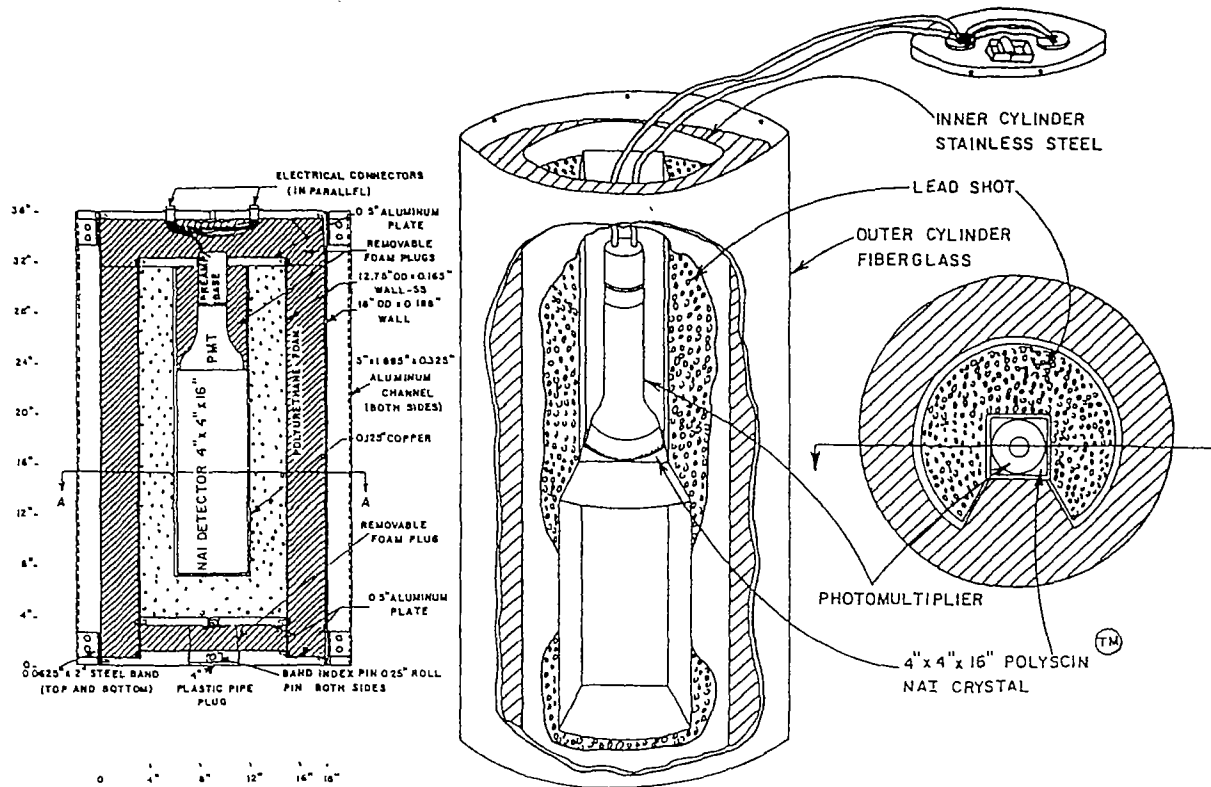


Figure 1. Cut-away of detector assembly.

A second system includes another four inch by four inch by sixteen inch unshielded sodium iodide detector, which is mounted in the forward upper corner of the van body. The scanner van employs this second system to determine whether or not there are other radiation sources on the road surface and sides away from the shield opening of the main detector, which may influence the main detector. The output of both detectors is integrated, displayed and recorded each second during the scan. Both detectors have their output signals sent to a multi-channel scalar and multi-channel pulse height analyzer. Signals are routed to a computer where a graphic display is generated using a Canberra database acquisition system. The scanner van is driven at five to seven miles per hour during the scan, and the operator visually monitors the graphic display on the CPS rate display, and notes anomalies from the information gathered. The data is recorded by the computer to a data file for future evaluation. When anomalies were identified, the system was switched to a multi-channel analysis (Pulse Height Analysis - PHA) mode and a long count was performed. This long count in the PHA mode allows the operator to determine the isotope and a relative intensity. Anomalies which cannot be resolved using this PHA mode are further investigated using hand-held instrumentation at the source of the anomaly. This information being displayed by the Scanner Van system is not quantitative. The absolute readings cannot be compared with other radiation detection devices because the relative background and vehicle speed are not fixed (this would relate to the counting geometry and count time). If one wanted to perform dose or risk modeling, a variety of factors would have to be determined for each location, among them efficiency of the detector, geometry of the detector, radionuclide mix, distance to source, exposure time, etc., and these factors change continuously as the vehicle moves. The Scanner Van simply identifies the anomalies in a rapid way, and at sensitivity lower than conventional hand-held radiation survey equipment. Each morning the system is checked in the same location, by placing a check source at increasing fixed distances from the detectors and recording the data. The results for each day are compared with the previous day to ensure consistency. Also, the system can be checked continuously in the PHA mode by observing the location of the natural occurring Potassium peak (approximately 1460 KeV).

A surveyor quality Ashtek Global Positioning System (GPS) is also mounted to the vehicle and connected to the computer. As the system records the radiation detector data, the system also logs the position of the van using this GPS system, along with the date and time. This allows for the data to be overlaid onto a map and photograph after the data is processed.

Scope

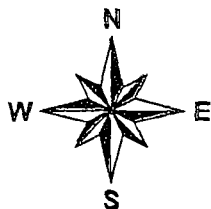
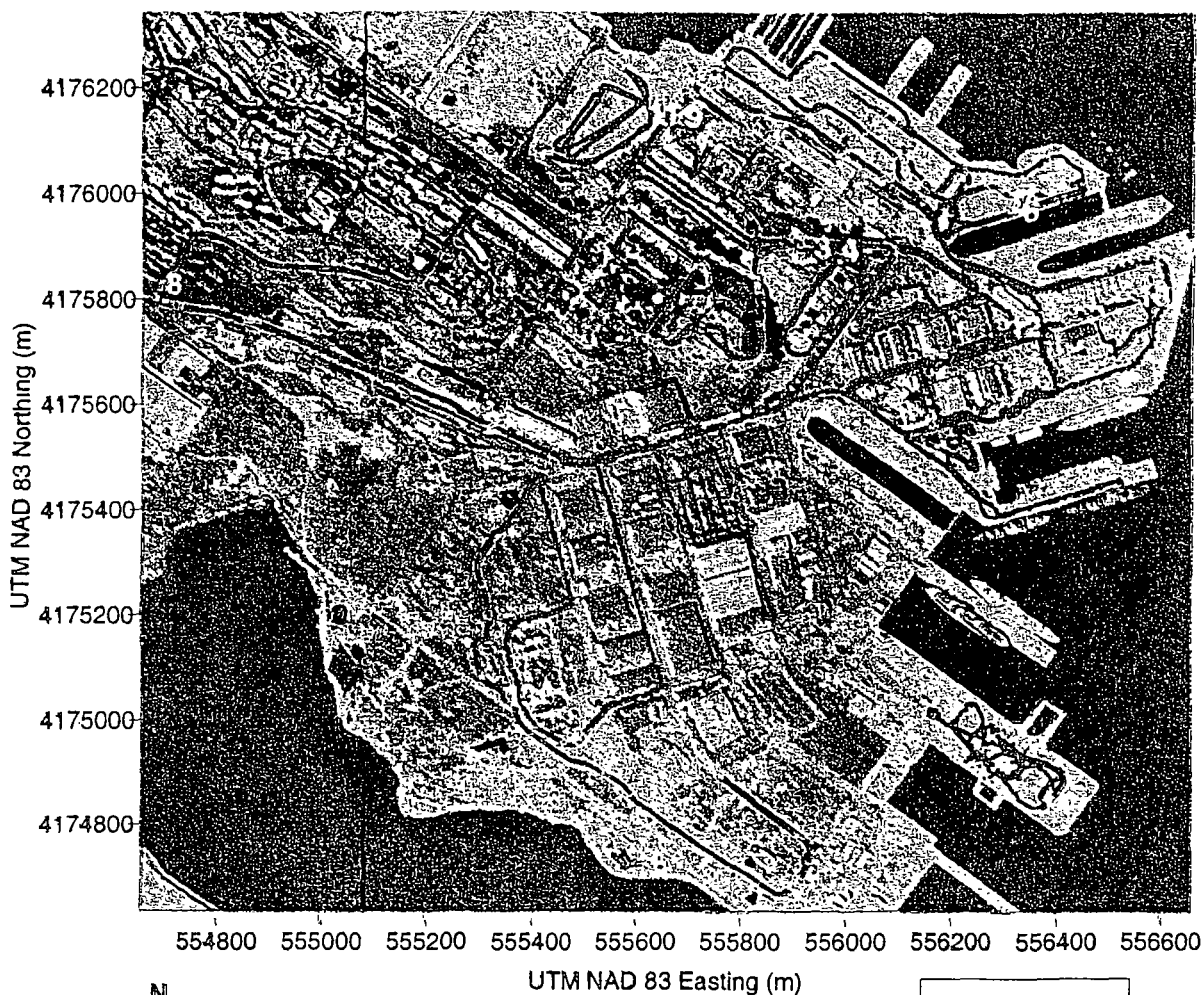
In coordination with the US EPA Region 9, several parcels of the Hunters Point Naval Shipyard were identified as the areas of highest priority. The areas identified as parcels A, B, and C were covered as completely as practicable. Sections of parcel D were surveyed that currently were not under remediation. Very little of Parcel E was scanned because most of its impacted areas are inaccessible to the Scanner Van and are still under investigation/ remediation. Areas were selected during the pre-survey planning phase for special emphasis based historical uses of radioactive materials in those areas. Roger Goodman and Helly Diaz Marcano of R&IE conducted the scan. Both scientists are experienced with performing radiation surveys, and Roger Goodman has performed three previous surveys with this Scanner Van system.

Hand-Held Instrument Verification of Anomalies

All of the anomalies were resolved using the PHA mode of the Scanner Van system, however several of the anomalies were additionally investigated by Certified Health Physicists Gerald Gels and David Rody of Veridian Corporation. Both are contractors to the US EPA Environmental response Team based in Cincinnati, Ohio. They conducted their surveys using hand-held instrumentation. Hand-held instrumentation included a calibrated Ludlum Model 19 Micro R (gamma scintillation) survey meter. Additionally, a calibrated BNC SAM model 935 portable Sodium Iodide based multi-channel analyzer was used. The portable instrument detector was placed at contact on the radiation sources to obtain the highest gamma dose rate of that anomaly. Gamma readings decline rapidly as the survey instrument is moved away. All of the anomalies investigated were attributable to natural occurring sources at levels consistent with what would normally be found in the environment.

Gamma Scan of Hunters Point Ship Yard San Francisco, CA

Main Detector



Survey Performed By



14 Gamma Spectroscopy Measurements
 UTM Universal Transverse Mercator
 NAD North American Datum
 CPS Counts Per Second
 m meters
 (Count Rate Range is Typical for Background for this Detector)

Mapping Provided By



Listing of Points of Interest Map 1

Locations where Pulse Height Analysis was performed using the Main Detector.

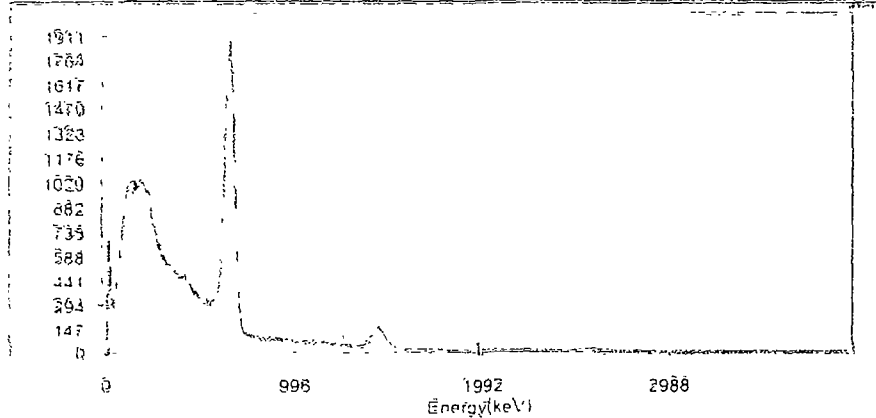
- 1) Calibration and Setup Location (Not an Anomaly)
- 2) Crisp Avenue
- 3) Robinson Street
- 4) Robinson Street at Horne Avenue
- 5) Lockwood Street near Fisher Avenue (Bldg 134)
- 6) North Side of Drydock #1 (North of Bldg 140)
- 7) North Side of Drydock #1 (South of Bldg 140)
- 8) Griffith Street at Crisp Avenue Gate (Old Main Gate)
- 9) Lot Near Building 117
- 10) Spear Avenue (Bldg 231 and 211)
- 11) Open Field North East of Donahue Street
- 12) Spear Avenue (Bldg 253)
- 13) J Street (Bldg 708)
- 14) End of Pier Under Large Overhead Crane

Graphical Data

Pulse Height Analysis graphs for Main Detector.

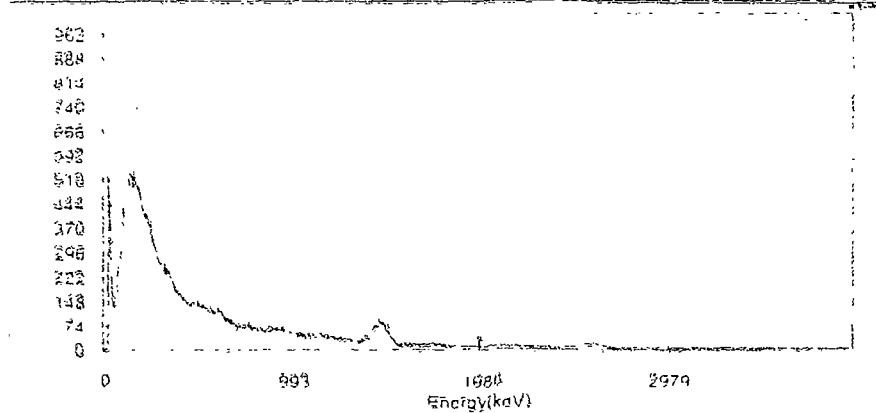
Hunters Point Gamma Spectroscopy

PHA #1 File:000002MainPHA408.cnf



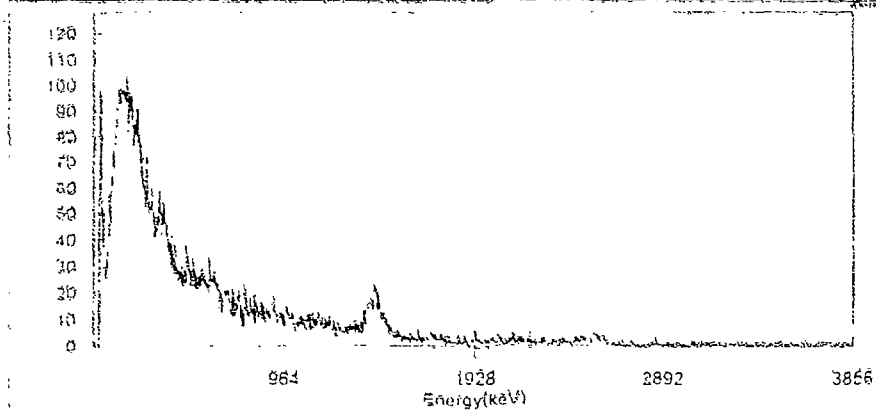
Shows
 Cs-137 Calibration
 Std and Natural
 K-40, Ra-228, and
 Th-232 Peaks.

PHA #2 File: 000002MainPHA435.cnf



Shows
 Natural K-40, Ra-
 228, and Th-232
 Peaks.

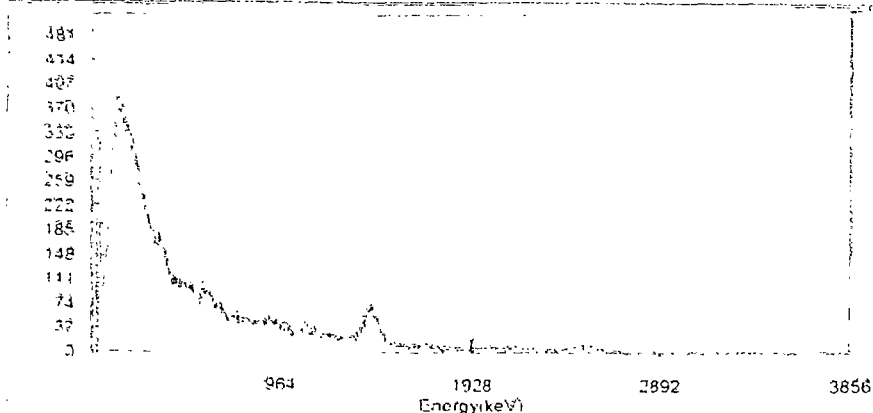
PHA #3 File: Bldg 111 091002 0847.cnf



Shows
 Natural K-40, Ra-
 228, and Th-232
 Peaks.

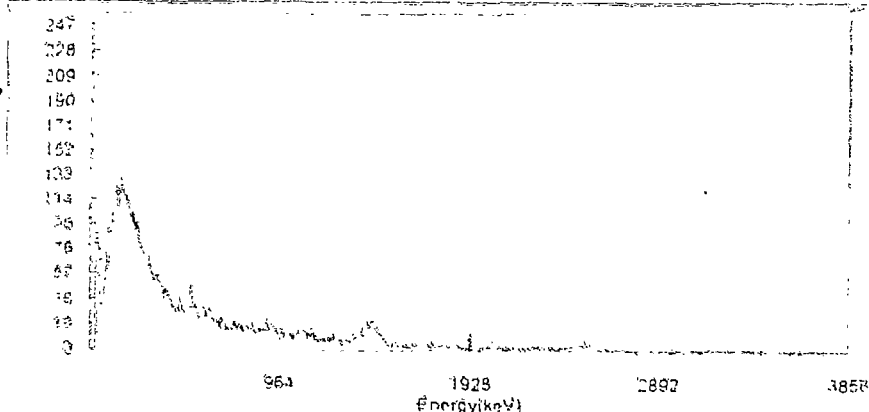
Hunters Point Gamma Spectroscopy

PHA #4 File: 091002MainPHA0834.cnf



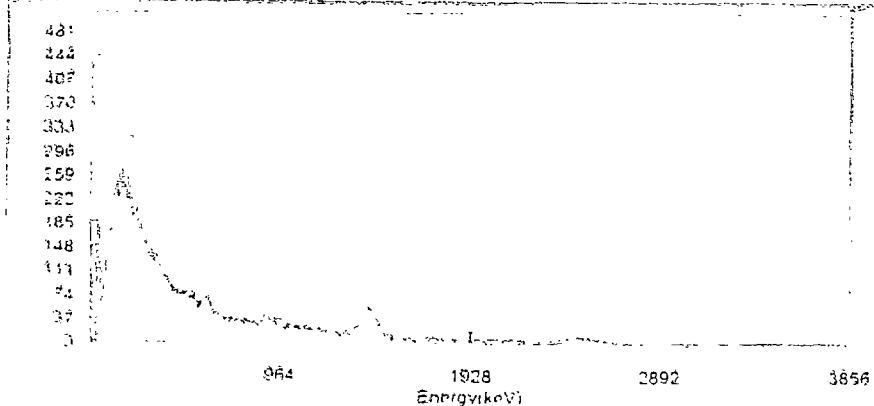
Shows
Natural K-40, Ra-
228, and Th-232
Peaks.

PHA #5 File: 091002PHA1106.cnf



Shows
Natural K-40, Ra-
228, and Th-232
Peaks.

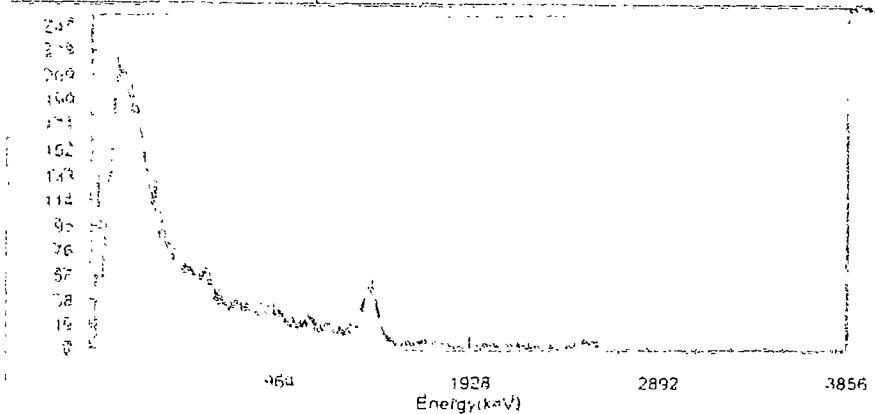
PHA #6 File: 091002PHA Bldg 140 1152.cnf



Shows
Natural K-40, Ra-
228, and Th-232
Peaks.

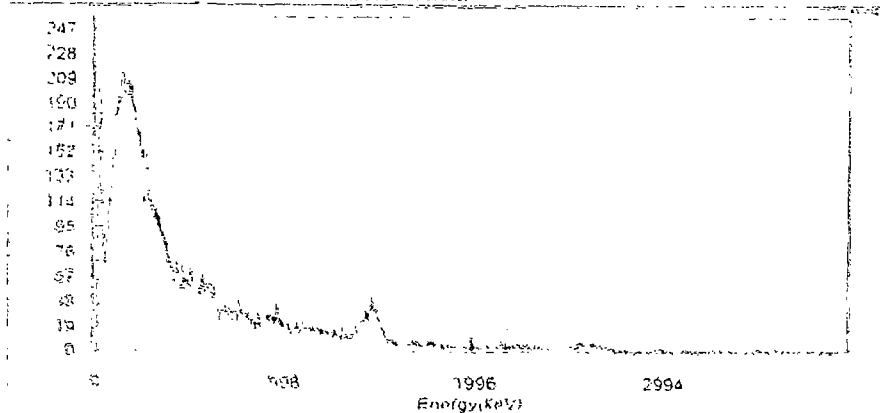
Hunters Point Gamma Spectroscopy

PHA #7 File: 091002PHA Bldg 140 North 1159.cnf



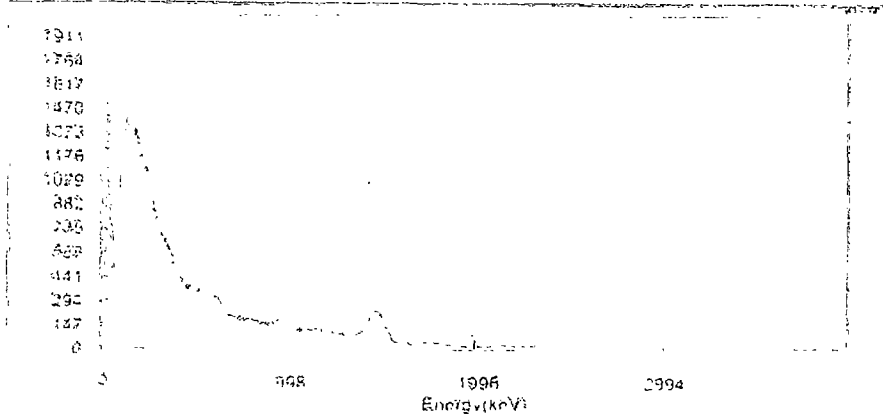
Shows
 Natural K-40, Ra-
 228, and Th-232
 Peaks.

PHA #8 File: Navy Rd 091002 Main PHA.cnf



Shows
 Natural K-40, Ra-
 228, and Th-232
 Peaks.

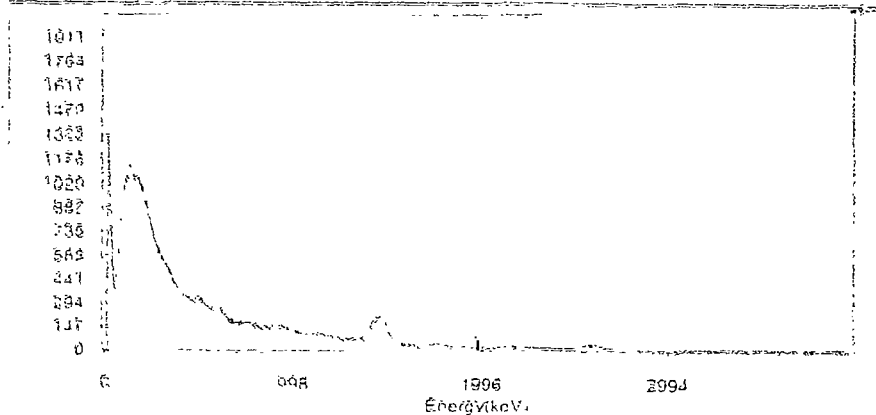
PHA #9 File: Area B Air 091002 PHA Main 1500.cnf



Shows
 Natural K-40, Ra-
 228, and Th-232
 Peaks.

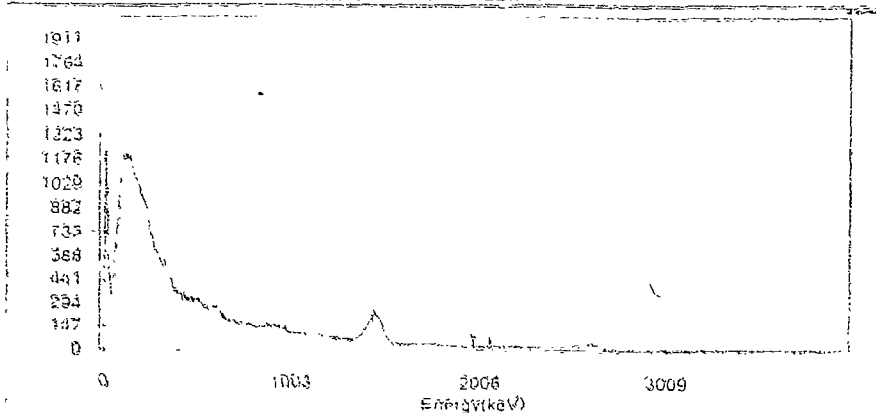
Hunters Point Gamma Spectroscopy

PHA #10 File: PHA MAIN 091002 Area C.cnt



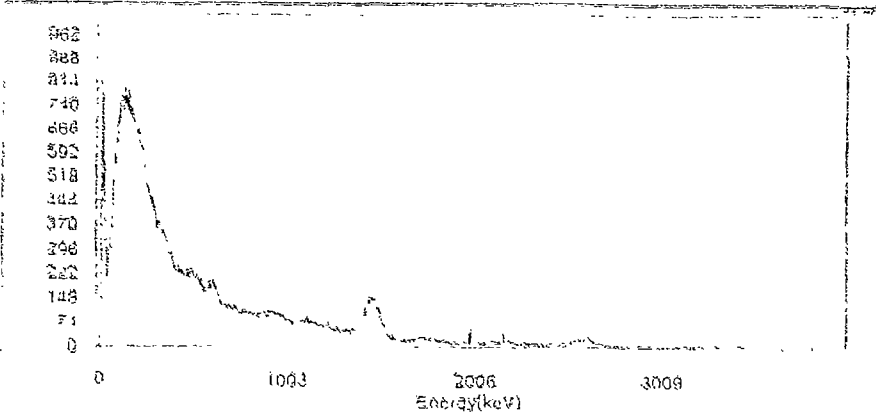
Shows
 Natural K-40, Ra-
 228, and Th-232
 Peaks.

PHA #11 File: 091102PHA Main Graded lot 0922.cnt



Shows
 Natural K-40, Ra-
 228, and Th-232
 Peaks.

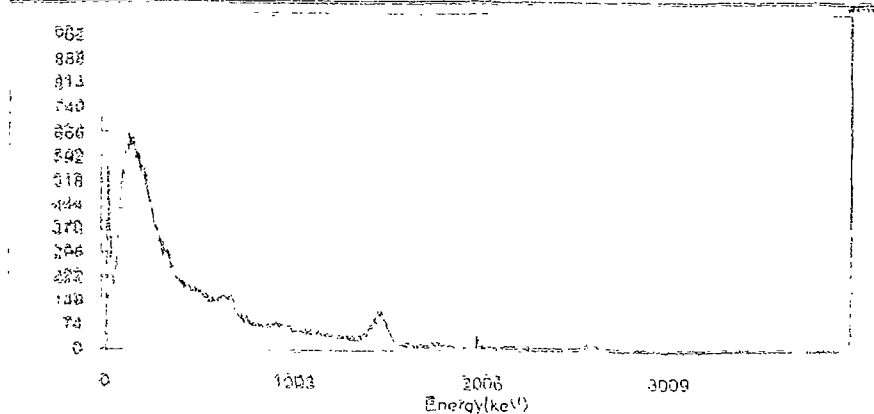
PHA #12 File: 091102 PHA Main Area C 1130.cnt



Shows
 Natural K-40, Ra-
 228, and Th-232
 Peaks.

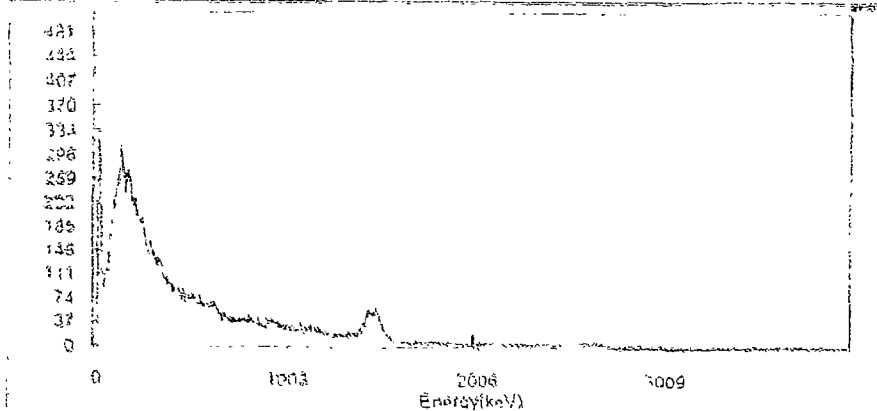
Hunters Point Gamma Spectroscopy

PHA #13 File: 091102 Main Kennel 1330.cnt



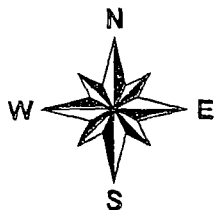
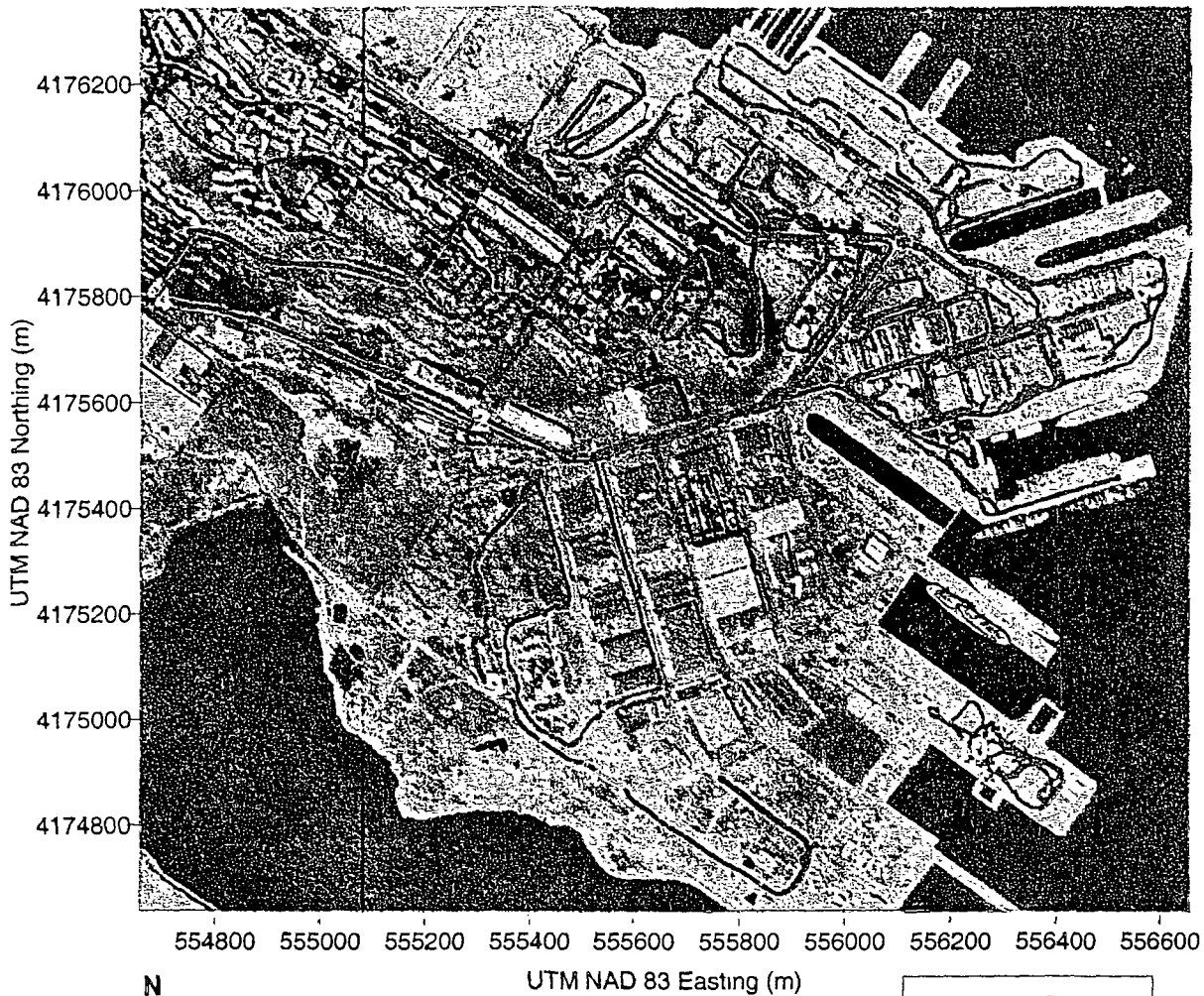
Shows
Natural K-40, Ra-
228, and Th-232
Peaks.

PHA #14 File: 091102PHAMain 1306.cnt



Shows
Natural K-40, Ra-
228, and Th-232
Peaks.

Gamma Scan of Hunters Point Ship Yard San Francisco, CA Unshielded Detector



Survey Performed By



10 Gamma Spectroscopy Measurements
 UTM Universal Transverse Mercator
 NAD North American Datum
 CPS Counts Per Second
 m meters

(Count Rate Range is Typical for Background for this Detector)

Mapping Provided By



Listing of Points of Interest Map 2

Locations where Pulse Height Analysis was performed using the Unshielded Detector.

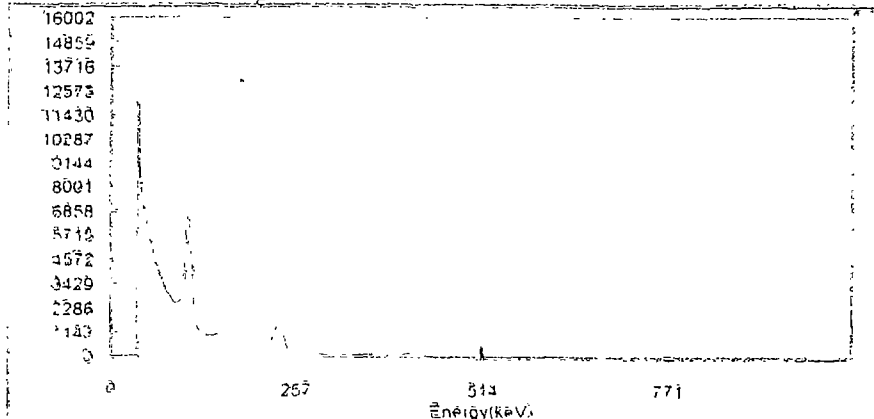
- 1) Calibration and Setup Location (Not an Anomaly)
- 2) Crisp Avenue
- 3) Robinson Street
- 4) Griffith Street at Crisp Avenue Gate (Old Main Gate)
- 5) Lot Near Building 117
- 6) Spear Avenue (Bldg 231 and 211)
- 7) Open Field North East of Donahue Street
- 8) Spear Avenue at C Street (Bldg 258)
- 9) J street between 3rd and 6th Avenue (Bldg 708)
- 10) Under Large Overhead Crane (Near Police Sub-Station)

Graphical Data

Pulse Height Analysis graphs for Unshielded Detector.

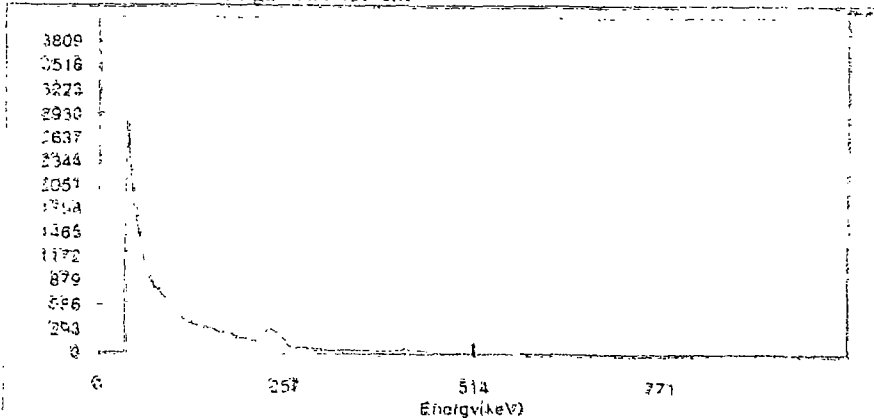
Hunters Point Gamma Spectroscopy

PHA #1 File: 090902Bkgd PHA 408.cnf



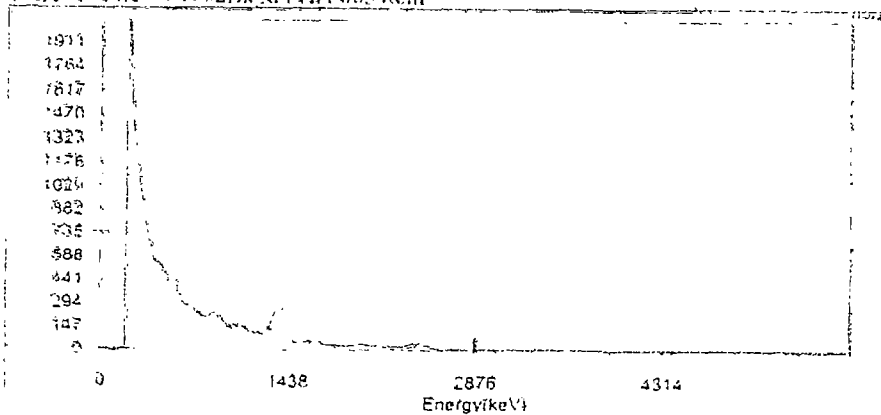
Shows Cs-137
 Check Source and
 Natural K-40, Ra-
 228, and Th-232
 Peaks. (Energy Scale
 not Calibrated)

PHA #2 File: 090902Bkgd PHA 435.cnf



Shows
 Natural K-40,
 Ra-228, and Th-
 232 Peaks.
 (Energy Scale not
 Calibrated)

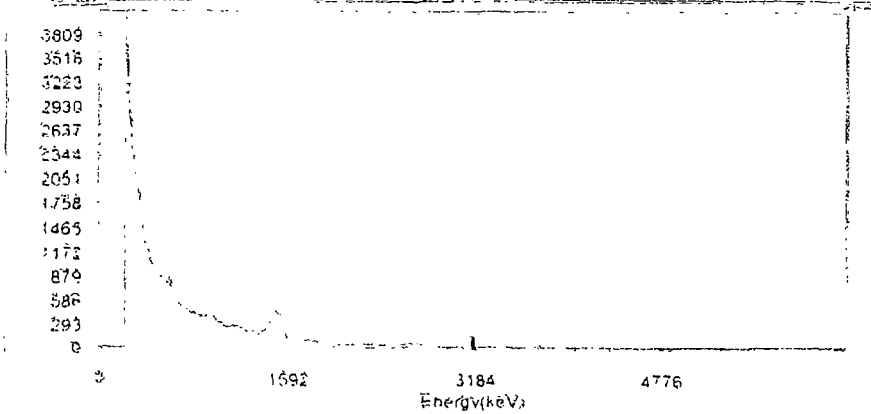
PHA #3 File: 091002Bkgd PHA 0834.cnf



Shows
 Natural K-40,
 Ra-228, and Th-
 232 Peaks.
 (Energy Scale not
 Calibrated)

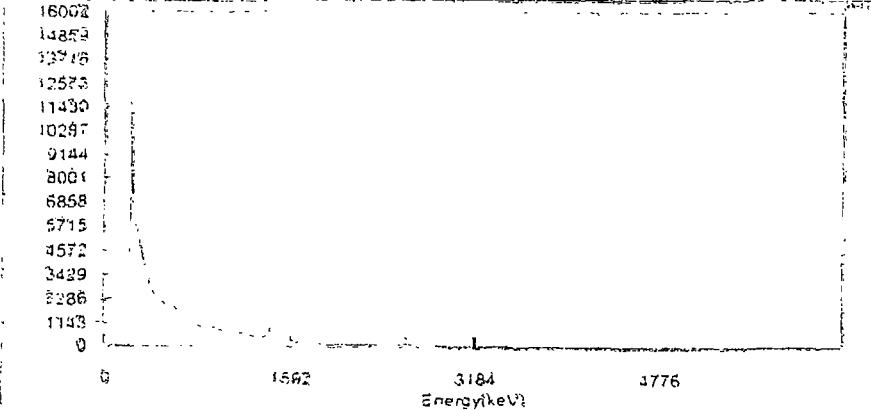
Hunters Point Gamma Spectroscopy

PHA #4 File: Nave Rd PHA 091002 Bkg.cnf



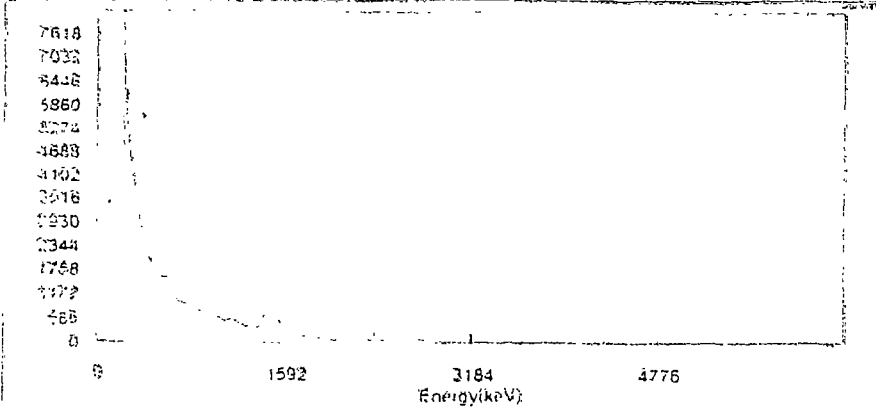
Shows
 Natural K-40, Ra-
 228, and Th-232
 Peaks.

PHA #5 File: 091002PHA Ari Bkgd 1500.cnf



Shows
 Natural K-40, Ra-
 228, and Th-232
 Peaks.

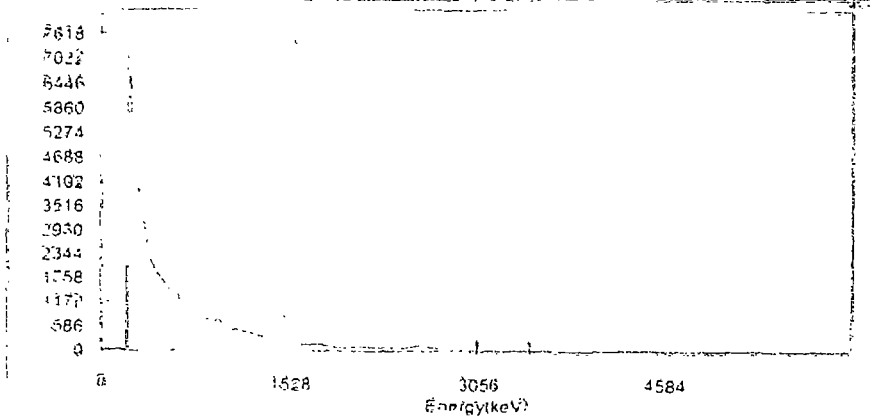
PHA #6 File: 091002PHA Bkgd Area C 1434.cnf



Shows
 Natural K-40, Ra-
 228, and Th-232
 Peaks.

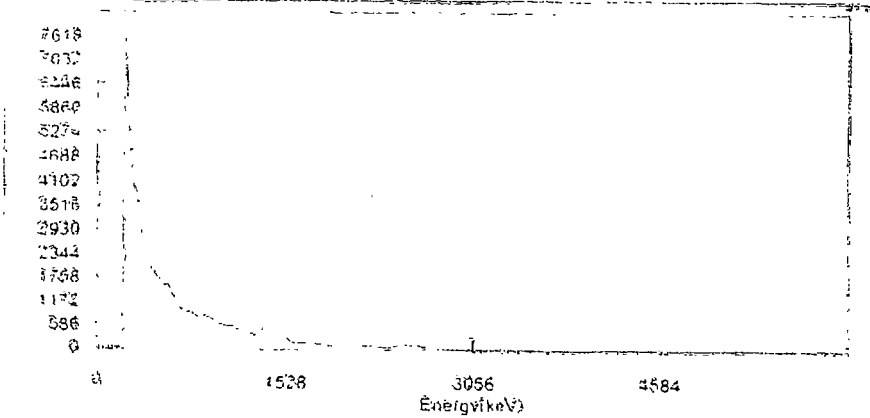
Hunters Point Gamma Spectroscopy

PHA #7 File: 091102PHA Bkgd Graded lot 0922.cnf



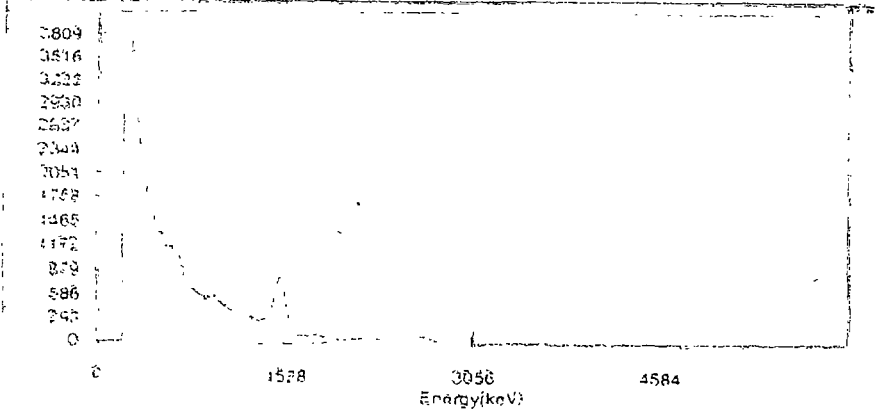
Shows
Natural K-40, Ra-
228, and Th-232
Peaks.

PHA #8 File: 091102PHA Area C Bkgd 1130.cnf



Shows
Natural K-40, Ra-
228, and Th-232
Peaks.

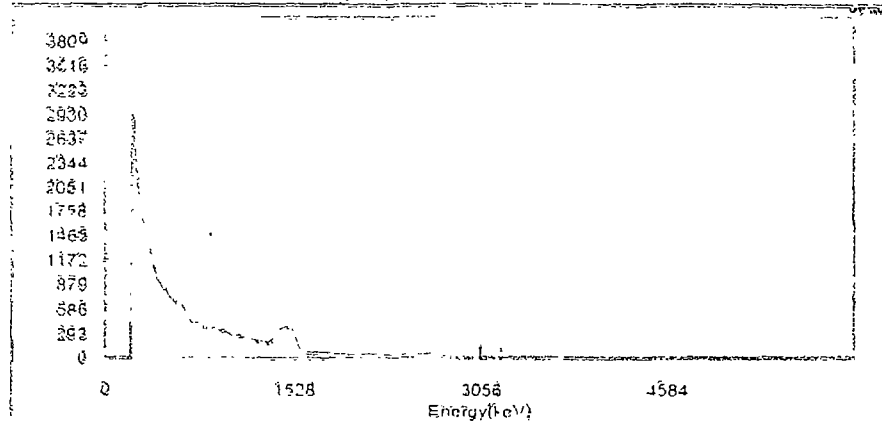
PHA #9 File: 091102Bkgd PHA Kernel.cnf



Shows
Natural K-40, Ra-
228, and Th-232
Peaks.

Hunters Point Gamma Spectroscopy

PHA #10 File 091102PHA Bkgd 1306.cnt



Shows
Natural K-40, Ra-
228, and Th-232
Peaks.

Discussion

It is not the purpose of this scan to suggest what cleanup levels should be and when or if a cleanup is warranted. However, in this scan, all anomalies detected in Parcels A, B, and C were attributable to Potassium-40, Radium-226, Thorium-232, and Uranium-238. All of these isotopes are naturally occurring in the environment. In all cases, the relative levels of these anomalies were consistent with what would normally be found in nature. The Potassium, Radium, Thorium, and Uranium are found naturally in the soil, rocks and seawater (concentrated by sea-spray along the waterfront). The Scanner Van is able to identify these environmental levels of naturally occurring material.

All anomalies detected in Parcel D were also due to the same naturally occurring radionuclides. However, the Scanner Van was unable to survey much of this parcel due to other remedial work being conducted at that time. Most of Parcel E was not surveyed because too many of the roads are unsuitable for travel. Also much of this parcel is still under investigation and remediation.

Conclusion

Based on the scan results, none of the areas in Parcels A, B, or C which were scanned warrant further investigation.

References

Allen James W., EPA-02 Surface Gamma Scanner System, Bendix Field Engineering Corporation, under EPA IAG 80-D-X-1013, June 1981.

Appendix: Raw Data, Tabular Format

On the enclosed CD, is the raw data collected during the scan.

Appendix: Raw Data, Tabular Format

Complete Raw Data file is attached with CD. There are 27000 lines, making this too large to print here.

Main Detector

PHA #	File	PHA time	GPS Time	Latitude (DMS)	Longitude (DMS)	Latitude (DD)	Longitude (DD)	Northing	Easting
1	408	1539	230810	3743.367	12221.93	37.72279	122.3656	4175248	555910.9
2	435	1621	231953	3743.539	12222.34	37.72565	122.3724	4175562	555306.4
3	847	84530	154346	3743.719	12221.92	37.72866	122.3653	4175899	555934.2
4	854	84826	154633	3743.716	12221.88	37.72861	122.3647	4175894	555985.3
5	1106	110415	180236	3743.756	12221.85	37.72926	122.3642	4175967	556024.8
6	1152	114809	184616	3743.755	12221.65	37.72925	122.3608	4175968	556328.8
7	1159	115629	185436	3743.772	12221.65	37.72953	122.3608	4175999	556325
8	Navy	143306	213113	3743.685	12222.76	37.72809	122.3793	4175828	554695.7
9	1500	144637	214449	3743.853	12222.08	37.73089	122.368	4176145	555687.8
Area									
10	C	155919	225724	3743.667	12221.49	37.72779	122.3581	4175807	556561.5
11	922	84529	154336	3743.855	12222.12	37.73092	122.3687	4176149	555631
12	1130	105544	175355	3743.636	12221.65	37.72727	122.3609	4175748	556318.9
13	1230	121642	191428	3743.259	12222.31	37.72098	122.3718	4175043	555361.4
14	1306	125708	195515	3743.142	12221.62	37.71904	122.3603	4174835	556380.1

Unshielded Detector

PHA #	File	PHA time	GPS Time	Latitude (DMS)	Longitude (DMS)	Latitude (DD)	Longitude (DD)	Northing	Easting
1	408	153930	230810	3743.36737	12221.93396	37.7227895	122.365566	4175248.06	555910.92
2	435	162142	231953	3743.53921	12222.34407	37.7256535	122.3724012	4175561.76	555306.42
3	854	84534	154633	3743.71643	12221.88024	37.7286072	122.3646707	4175894.06	555985.34
4	Navy	141759	211607	3743.66578	12222.75645	37.727763	122.3792742	4175791.77	554699.19
5	1500	144639	214447	3743.85311	12222.08176	37.73088517	122.3680293	4176144.80	555687.77
6	1434	155919	225728	3743.66743	12221.48852	37.7277905	122.358142	4175807.38	556561.38
7	922	84533	154338	3743.85549	12222.12036	37.73092483	122.3686727	4176148.82	555631.05
8	1130	111236	181043	3743.61731	12221.77855	37.72695517	122.3629758	4175711.79	556136.05
9	230	121051	190859	3743.26899	12222.32895	37.72114983	122.3721492	4175062.24	555331.98
10	1306	124900	194801	3743.19971	12221.71062	37.71999517	122.3618437	4174940.27	556241.07

Hunter's Point, 09-09-02

1330 Arrive on site, conduct safety briefing, begin calibration & QA/QC
1600 090902 G PS, 230529 clock 407 PM 090902BkgdPHA408 GPS 408
1610 Completed Calibration & QA/QC check
1615 Begin scanning Crisp Street at gate and block building 9 (RDL building)
1424 Vander Graff generator building 424 GPS 232237
1626 Turn around 232456
1430 Passed Start point 233100
1633 Turn around at Spear Avenue 233150
1635 Stopped 233316 Stopped GPS 090902 GPS 233316 clck 4 Save Canberra
1700 Stopped scanning

Took tour of area A and B to plan next day scan

09-10-02

0700 Arrive on site, conduct safety briefing calibrate & QA/QC
0827 Begin scan Fisher Street 152550 GPS file 091002 0827
0829 Passing intersection (no name) 152737
0831 Passing intersection
0835 Turn left Robinson 153201
0836 Turn Right at Galvez 153455
0838 Turning left Donahue 153644
0842 Turning around at Hudson (Dego Marys)
0842 Berm next to gate elevated two times 842 PHA indicates K-40 Ra-226 154100
0843 Moved forward, turned right, Galvez 154115
0844 Turn left Robinson 154252
0848 Stopped, save main as 110 091002 0848
0848 Restart 154657
0849 Right fisher 154718
0850 Turn right Crisp
0851 Crossing intersection 154935 854 155208
0854 Stop scan 155233, Stop GPS, Stop Canberra and save
0926 Start scanning building 110 GPS 162455 Pulled up along each side of building
0930 Bldg 101 and Art colony 162847 one-way clockwise
0934 Completed building. 101 GPS 163316 Going uphill to officer country
0935 Turn through parking lot and uphill 163435
0940 Channel 650 Berm 163903
0942 Passing Officers Club 164033 Channel 1004
0945 Officer Housing 164400
0948 Right turn down hill and around loop
0948 Passing Officers Club Close 164636, U-Turn at Officers Club and reverse the loop
0953 Left at Natoma 165159
0955 Stop at BOQ Channel 1710 165329
0956 Completed loop at Officers Club 165433
0958 Stop GPS, Stop save Canberra, 091002 GPS 165433 clck 0956 0958
0958 Start GPS 091002 GPS tempclck 958 Start Canberra
1002 Passing intersection of Natoma, Driving on Hudson 170043 channel 102
1004 Crossing Fridell, driving to dead end 170302

1007 Turn around dead-end 170522
1008 Turn right Innes to dead end 170645 Channel 471 Turn around
1011 Right Fridell, 170927 Ch 627
1012 Right Jerrold 171024 Ch 670
1012 Turn around dead end 171056 ch 708
1015 Right Fridell 1713 30
1016 Turn Right at "T" Kirkwood 171422 Ch 922
1016 U Turn at dead end 171455 ch 956
1016 Proceed to other end of Kilkwood
1019 U- Turn 171800 Ch 1134
1022 Right turn Fridell 172033 Ch 1289
1023 Right Jerell 172117 Ch 1333
1025 Left turn Coleman 172316 Ch 1453
1026 U-Turn at Hudson 172441 Ch 1535
1028 Right Turn Jerell 17263 5 Ch 1640
1029 Right turn Fridell 172727 Ch 1706
Elevated area Ra-226 and K-40 Ch 1715-1955
1033 Turn right Innes 173143 Ch 1955
1035 Stop save GPS 174000, Canberra 091002174000clck1035
1038 Start GPS 091002GPSTMPclck1038
1039 Re-run Ines 173712
1042 U-Turn Ines 174034 ch 271
1043 Right turn Fridell 174155 Ch 357
1044 Right turn Hudson 174240 Ch 395
1046 End of Hudson at loop entrance 174437
1056 Stop parking lot through Ch 1075 175415 Stop GPS 175546
1058 Begin Parcel B Driving down the hill on Donahue
1058 Start GPS 175546 Save Canberra 091002GPS 175546clck1058
1100 Starting Donahue 175800 CH 25
1101 Turn right on Lockwood 175917 Ch 94
1103 Passing building 114 180127 Ch 220
1104 Elevated Radium area 180255 Saved PHA
1107 U-Turn at T 180535 Ch 480
1108 Passing shop 38 Building 134 Machine Shop 180627
1109 Passing building 123 180726 Ch 577
1111 Right turn Donivan at building 146 180939 Ch 719
1112 Right turn other end Building 146 Submarine pen area 181042 Ch 777 1115
1115 Following contour of buildings Passing building 123 181317 Ch 933 Slight elevation in
Ra-226 and K-40
1119 Passing Building 134 Elevated Ra-226 and k-40 181741 Ch 1185
1122 End at tip of Dry Dock 3 and U-turn 182006 Ch 1346
1122 Proceed along buildings at water front Passing Building 157 182057 Ch 1396
1123 Passing Building 156 182138 Ch 1420
1124 Passing Building 130 182236 Ch 1496
1125 Concrete Cinderblock Shield No elevated readings 182400 ch 1592
1126 Passing Building 128 182458 Ch 1637

1127 Passing Building 125 182552 Ch 1689
1129 Stop GPS 182725 File name 091002GPS 182725clckI 129
1131 Start GPS file name 091002GPStempckI 13 I.txt Start Canberra
1133 Driving toward water front Looping building 159 clockwise 183117 Ch 87
1134 U-Turn and drive behind Building 125 Waterfront side 183248 Ch 181
1135 Passing water front side (North side) of Building 128 183344 GPS late start
1137 Passing building 130 north side 183522 Turn up east side Building 130
1138 Turn left across north side Building 156 183612 Ch 380 .
1138 Passing Building shed 183648
1138 Passing West side Building 157 183704 Ch 439
1139 Right turn North end Building 157 183733 Ch 466
1140 Right turn East side Building 157 183809 Ch 494
1140 Drive to end of North side dry dock 3
1142 Driving down crane tracks along north side of Dry dock 3 184044 ch 665
1145 U-Turn at mouth of Dry dock 184403 Ch 868
1146 Passing building 140 Pump House 93 Ch 967
Very large K-40, Thorium and daughters (gravel) some Ra-226 Save PHA
1154 U-Turn end of dry dock 3 going by north side Building 140 185247 Ch 1372
1155 Passing Building 140 185359 Ch 1442 - 1699
1200 Proceed to water front Turn left at water 185915 Ch 1771 Follow water front
1203 Passing Building 133 190131 Ch 1906
1204 Passing Berth 58 190225
1205 Stop GPS Stop save Canberra 190340 File name 091002GPS190340clckI205
1207 Start GPS 091002GPStempckI207
1207 Restart scan at sub-berths
1208 Passing hearth 5 190650 Ch 42
1209 Passing Berth 6 190734 Ch100
Large K-40 peak very small Thorium and daughter
1213 Passing last berth left turn up Donovan 191210
1215 Passing gravel area off of Donovan 191310 Ch 434
1217 End at Galvez Stop scan 191506
1217 Stop for lunch Stop GPS Stop save Canberra 091002GPS191506clckI217
1417 Start scan at Crisp Gate Travel uphill
1417 Start GPS 091002GPS212026 Ch 268
1422 Begin scanning Navy Road, Turn around and back to beginning of Navy road
1431 End Navy road 212912
1435 Neighborhood 213300 Ch 911 through 1060
1438 Returning to area B 213640 Stop GPS Stop save Canberra
1445 Start GPS
1446 Start Canberra 214500
1447 Turn left Building 117 North (water front) side 214703
1451 Right turn around north side Building 104 English Street
1451 U-Turn at Robinson 215000 Ch 336
1454 Right turn Building 116 215200 ch 433
1455 Right north face Building 116 215316 ch 502
1455 crossing Building 115 and Right turn at building 115 on McCann Street Ch 555

1456 U-Turn at English Street 215458 Ch 615
1457 Passing Enlisted Club Reef Building 120 West side 215559 Ch 664
1458 Right at corner Building 120 North side on Lockwood 215654 Ch 733
1459 Right turn Building 120 215710 ch 750
1459 Right turn Building 120 South side 215753 Ch 790
1501 Passing Building 113/114 215928 Ch 890
1501 Backing down Lockwood
1505 Turning on alley between Building 120 and 113 220326 Ch 1124
1508 Turning left back up along back side of Building 113/114 220626 Ch 1290 1510
Possible Thorium welding rods or Thorium and K-40 in concrete Stopped 220829
1512 Stopped GPS Stop save Canberra 221110
1523 Start GPS Driving down waterfront straight down main area 222142
1527 Pass by large concrete buildings 222506 Ch 202
1527 End area B
1529 Begin area C Driving Lockwood 222756 Ch 393
1530 Passing Building 214 222837 Ch 456
1530 Left turn between buildings 231 and Dry Dock 2 1534
1534 Right turn along waterfront 223213 Ch 663
1534 Passing 219 Right turn 223250 Ch 706
1535 Left turn Nimitz Ave. Building 211 223317 Ch 731
1535 Right turn Building 211 223317 Ch 760
1537 Passing Building 253 shop 51 223511 Ch 853
1541 Through gate passing building Shoe Store 223 949 Ch 1100
1543 passing Building 270 224034 Ch 1212
1543 Stopped and started GPS 224250
1544 Passing C Street 224428 Ch 1281
1546 Turn right Building 203 Power Plant 224453 Ch 1430
1548 Passing Building 282 224600 Ch 1476
1548 Right Turn Spear 224704 Ch 1550 Bldg 215 Fire Dept. Station
1550 Passing Building 281 224839 Ch 1660
1552 Passing CIA (Controlled Industrial Area) Gate 225014 Ch 1746
1552 Passing Building 253 225049 Ch 1780
1554 U Turn at Building 219 (loop around clockwise) 225213 Ch 1867
1555 Stop driving west 225331 Stop GPS
1555 Stop/Save Canberra 091002 GPS225331Clck1555
1558 Start GPS 091002GPSTempClck1558.txt
1600 Driving West on Spear Ave. 225804
1601 Crossing Street 225924 Ch 122
1601 Crossing CIA Gate and Cafe 225940 Ch 146
1603 Passing Building 17 230133 Ch 259
1604 Left Turn Dry Dock 4 230222 Ch 304
1605 Left Turn Building 203 onto Nimitz 230338 Ch 373
1610 Gate locked, going around (at Building 229) 230813 Ch 651
1610 U Turn Nimitz, Turning Right C street from Nimitz 230950 Ch 735
1612 Right Turn Spear 231029 Ch 789
1613 Right Turn at Building 281 231118 Ch 851

1614 Left Turn Nimitz 231230 Ch 899
1615 Left Turn Building 253 231334 Ch 965
1617 Left Turn Building 231 231526 Ch 1092
1622 Stop scanning 232044 Ch 1400
1624 Returning to pickup street between Building 253 and 228 232204 Ch 1481
Large concrete Building Thorium and K-40 detected
1626 Left turn onto Spear 232400 Ch 1575
1627 Left turn onto C street 23517 Ch 1676
1648 Stop Scan 232648 Ch 1776
1648 Stop GPS Stop Save Canberra 091002GPS232648Clck1648 Stop for the Day
9/11/02
0655 Arrive on site
0715 Completed Morning Briefing
0730 Pickup Van
0740 Begin QA/QC and Calibration
0844 Begin Scanning
0844 Start GPS
0845 Start Canberra 154322GPS0845
0845 Counter clockwise, graded lot behind restaurant Dego Mary's from fence 154322
0900 U turn reverse to clockwise 155842 Ch 917
0906 Making inside passes, appears to have small amount of Thorium in the gravel (natural),
and large K-40 concentration (also natural)
0922 Stopped Survey, Stop GPS Save 162000 091102GPS162000Clck0922
0922 Saved PHA 091102 Main/Bkgd Graded lot
1055 Start Area C 175343 Driving down Spear, Loop restaurant
1100 U turn at Robinson and Fisher 17815 Ch 265
1106 Turn into Van Keuren Ave. 180412
1108 U turn 180558, turn into lot between buildings
1112 turning into second lot between buildings
1115 Turning next lot between buildings
1130 Stop Save Canberra 182810
1137 Start GPS 183557 Start N-26 Triangle next to Drydock 4 and Pier 238
1204 Stop GPS 190706
1210 Start GPS
1214 Scanning Dog Kennel Building 707 (former known Cs-137 area and area of Radium
cleanup) 191205
1229 Driving to former theater Bldg 509 192739 Ch 1120
1234 H and Mann 193235
1238 Passing theater location 193606 Ch 1640
1244 Stop GPS Save 194249
1248 Start GPS
1250 Start scan of police storage building (Building 383) and pier 194800
1305 Stop GPS, Stop scan Save file 200309

Attachment A

**Photographs
Of
The US EPA
Scanner Van Survey
Conducted at
Hunters Point Naval
Shipyard
From
September 9 to 12, 2002**



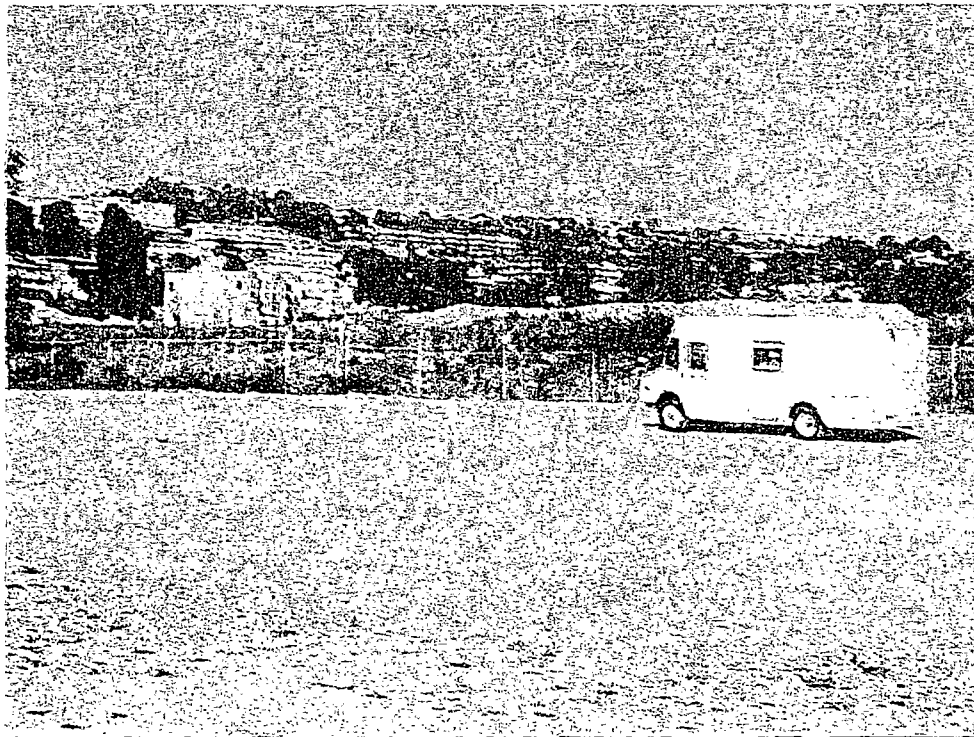
US EPA Radiation and Indoor Air National Laboratory (RIANL)
Scanner Van surveying Crisp Avenue of
Hunters Point Naval Shipyard



Scanner Van surveying the former residential areas in Parcel A



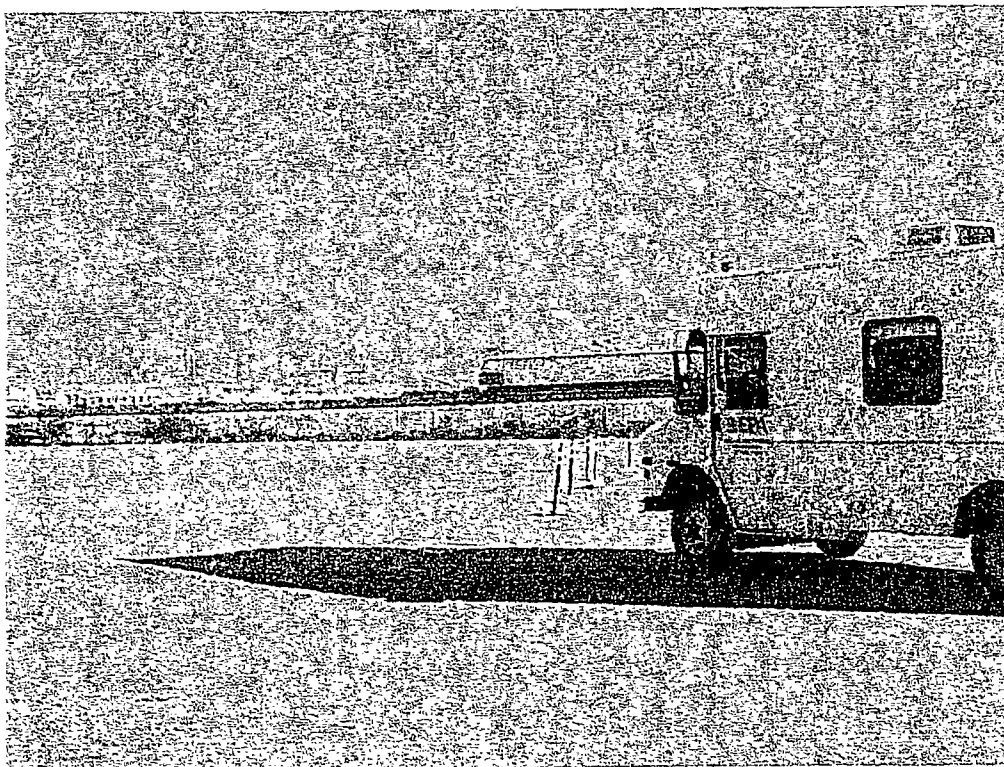
Scanner Van on Old Navy Road in Parcel A



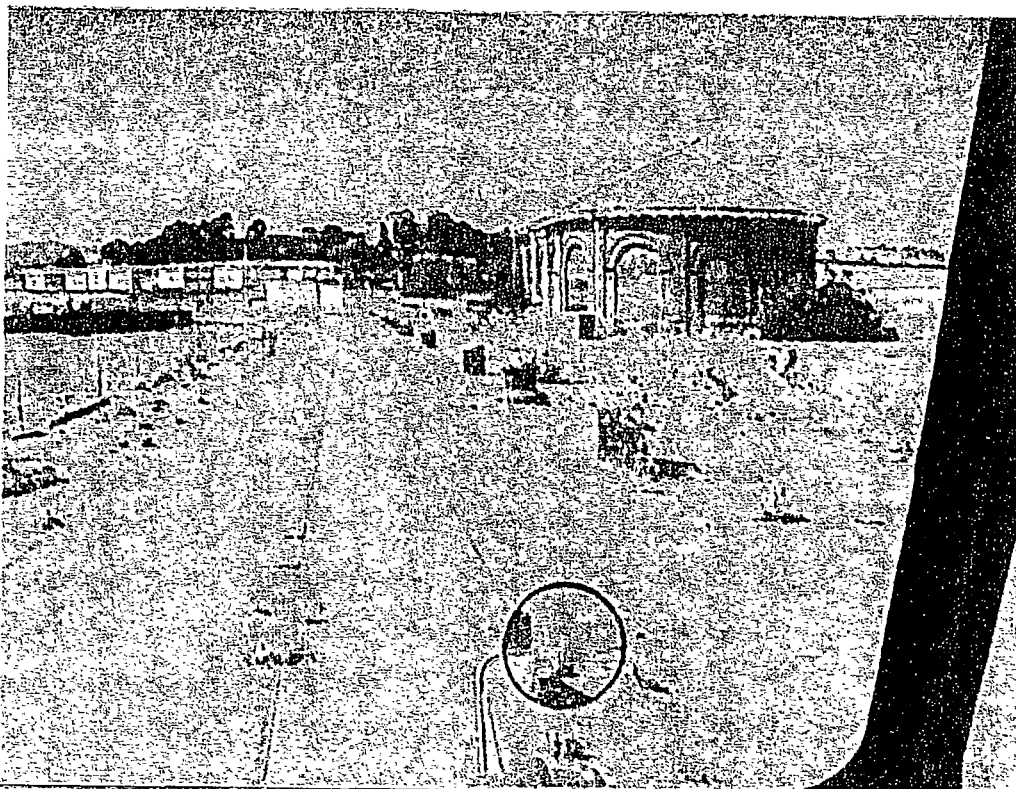
Scanning along the site's fence line at IR 7/18 in Parcel B



Surveying IR 7/18 behind Dago Mary's Resturant in Parcel B



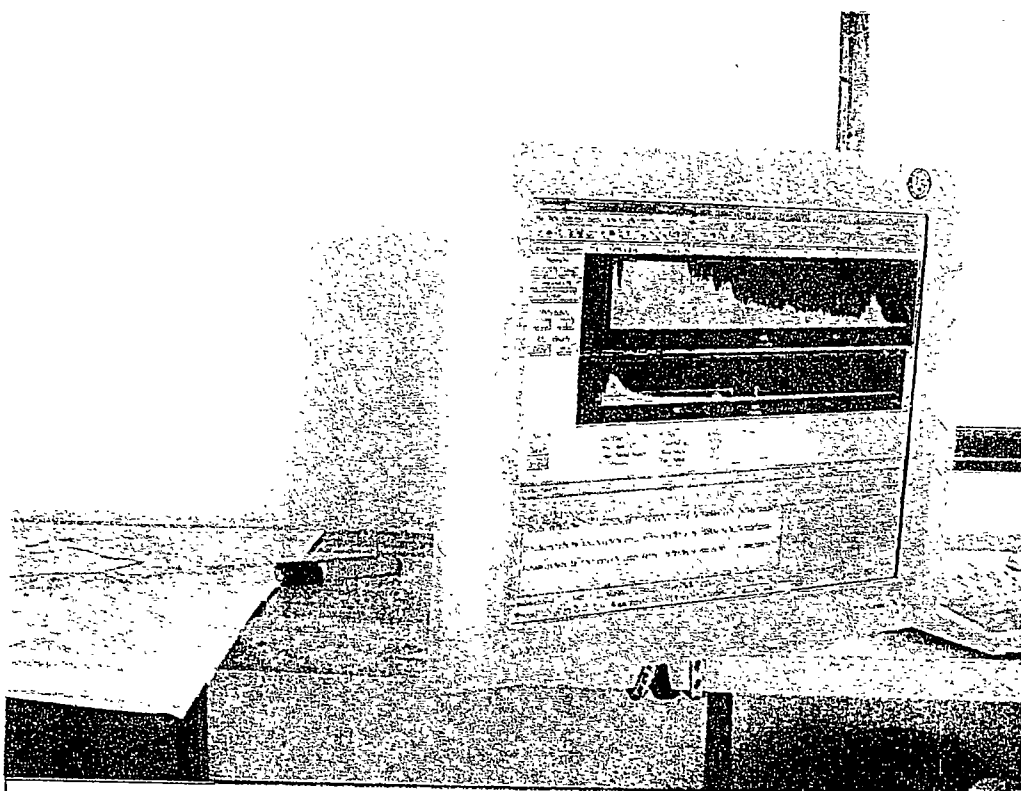
Downtown San Francisco skyline from IR 7/18 in Parcel B



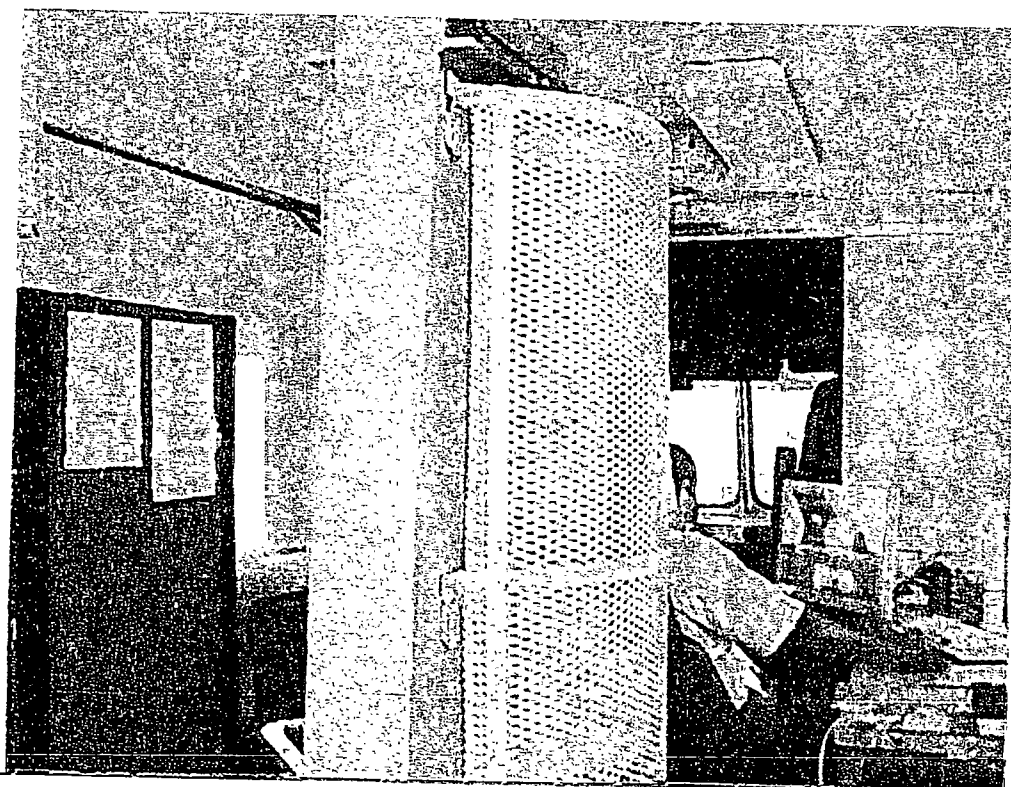
A view of Drydock #3 pumphouse through the Van's windshield



Roger Goodman scanning the north wall of Drydock #3 pumphouse



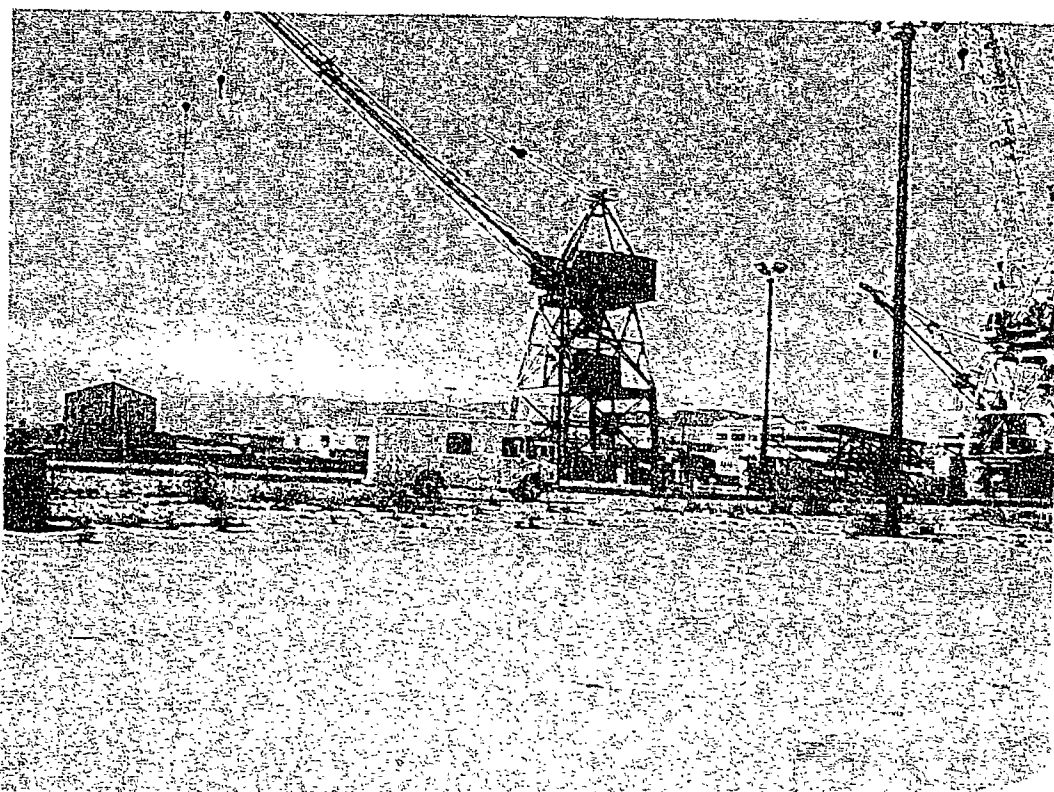
Spectrum image on the SV's pulse height analyzer



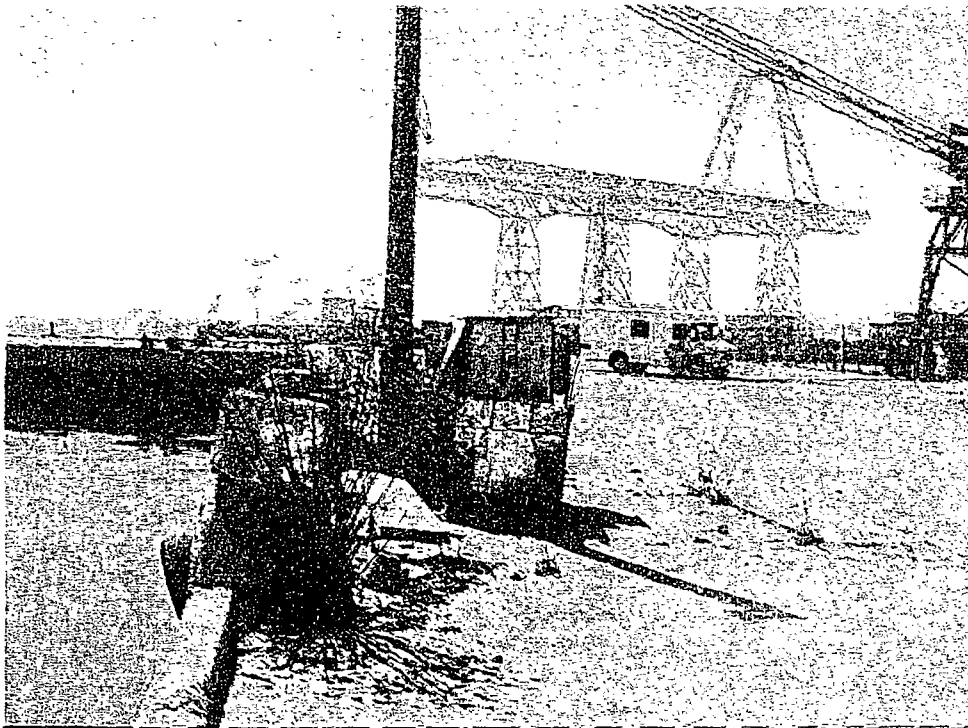
Scanner Van main (shielded) detector and spectrum analyzer operator



Surveying the pier in Parcel C near Drydock #4



Scan Van surveying along the north side of Drydock #4



Scanning Parcel C near Drydock #4



Overgrown street in Parcel E



Ionizing Radiation Series No. 1

General Description

Ionizing radiation is radiation that has sufficient energy to remove electrons from atoms. In this document, it will be referred to simply as radiation. One source of radiation is the nuclei of unstable atoms. For these radioactive atoms (also referred to as radionuclides or radioisotopes) to become more stable, the nuclei eject or emit subatomic particles and high-energy photons (gamma rays). This process is called radioactive decay. Unstable isotopes of radium, radon, uranium, and thorium, for example, exist naturally. Others are continually being made naturally or by human activities such as the splitting of atoms in a nuclear reactor. Either way, they release ionizing radiation. The major types of radiation emitted as a result of spontaneous decay are alpha and beta particles, and gamma rays. X rays, another major type of radiation, arise from processes outside of the nucleus.

Alpha Particles

Alpha particles are energetic, positively charged particles (helium nuclei) that rapidly lose energy when passing through matter. They are commonly emitted in the radioactive decay of the heaviest radioactive elements such as uranium and radium as well as by some manmade elements. Alpha particles lose energy rapidly in matter and do not penetrate very far; however, they can cause damage over their short path through tissue. These particles are usually completely absorbed by the outer dead layer of the human skin and, so, alpha emitting radioisotopes are not a hazard outside the body. However, they can be very harmful if they are ingested or inhaled. Alpha particles can be stopped completely by a sheet of paper.

Beta Particles

Beta particles are fast moving, positively or negatively charged electrons emitted from the nucleus during radioactive decay. Humans are exposed to beta particles from manmade and natural sources such as tritium, carbon-14, and strontium-90. Beta particles are more penetrating than alpha particles, but are less damaging over equally traveled distances. Some beta particles are capable of penetrating the skin and causing radiation damage; however, as with alpha emitters, beta emitters are generally more hazardous when they are inhaled or ingested. Beta particles travel appreciable distances in air, but can be reduced or stopped by a layer of clothing or by a few millimeters of a substance such as aluminum.

Gamma Rays

Like visible light and x rays, gamma rays are weightless packets of energy called photons. Gamma rays often accompany the emission of alpha or beta particles from a nucleus. They have neither a charge nor a mass and are very penetrating. One source of gamma rays in the environment is naturally occurring potassium-40. Manmade sources include plutonium-239 and cesium-137. Gamma rays can easily pass completely through the human body or be absorbed by tissue, thus constituting a radiation hazard for the entire body. Several feet of concrete or a few inches of lead may be required to stop the more energetic gamma rays.

X Rays

X rays are high-energy photons produced by the interaction of charged particles with

matter. X rays and gamma rays have essentially the same properties, but differ in origin; i.e., x rays are emitted from processes outside the nucleus, while gamma rays originate inside the nucleus. They are generally lower in energy and therefore less penetrating than gamma rays. Literally thousands of x-ray machines are used daily in medicine and industry for examinations, inspections, and process controls. X rays are also used for cancer therapy to destroy malignant cells. Because of their many uses, x rays are the single largest source of manmade radiation exposure. A few millimeters of lead can stop medical x rays.

SOURCES OF RADIATION

Natural Radiation

Humans are primarily exposed to natural radiation from the sun, cosmic rays, and naturally occurring radioactive elements found in the earth's crust. Radon, which emanates from the ground, is another important source of natural radiation. Cosmic rays from space include energetic protons, electrons, gamma rays, and x rays. The primary radioactive elements found in the earth's crust are uranium, thorium, and potassium, and their radioactive derivatives. These elements emit alpha and beta particles, or gamma rays.

Manmade Radiation

Radiation is used on an ever increasing scale in medicine, dentistry, and industry. Main users of manmade radiation include: medical facilities such as hospitals and pharmaceutical facilities; research and teaching institutions; nuclear reactors and their supporting facilities such as uranium

mills and fuel preparation plants; and Federal facilities involved in nuclear weapons production as part of their normal operation.

Many of these facilities generate some radioactive waste; and some release a controlled amount of radiation into the environment. Radioactive materials are also used in common consumer products such as digital and luminous-dial wristwatches, ceramic glazes, artificial teeth, and smoke detectors.

Health Effects of Radiation Exposure

Depending on the level of exposure, radiation can pose a health risk. It can adversely affect individuals directly exposed as well as their descendants. Radiation can affect cells of the body, increasing the risk of cancer or harmful genetic mutations that can be passed on to future generations; or, if the dosage is large enough to cause massive tissue damage, it may lead to death within a few weeks of exposure.

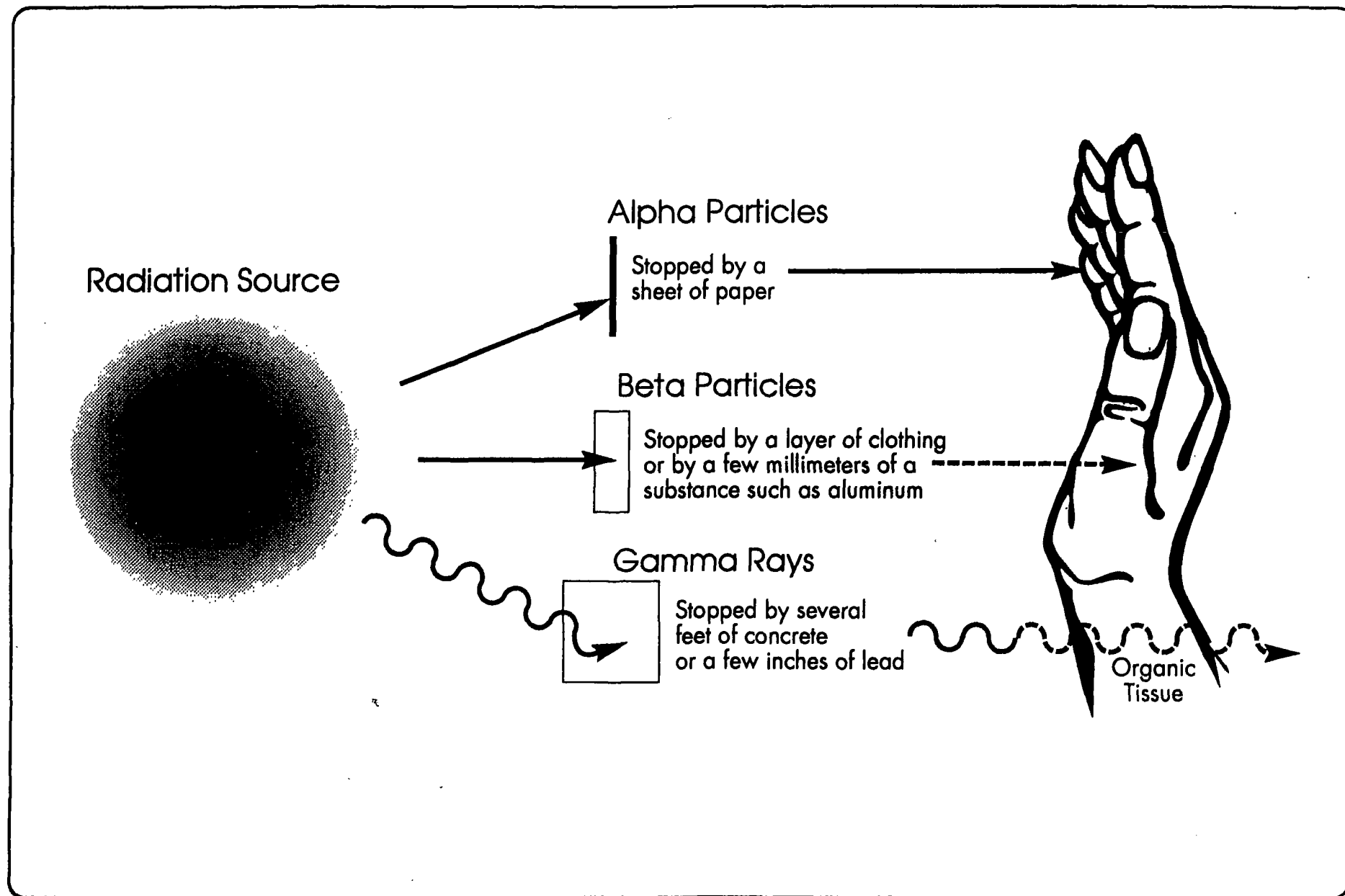
Suggested Reading

To learn more about radiation, we suggest you read the following books:

Cember, H. Introduction to Health Physics. New York: Pergamon Press, 1983.

Martin, A. and Harbison, S.A. An Introduction to Radiation Protection. 3rd ed. London: Chapman and Hall, 1986.

Shapiro, J. Radiation Protection. Cambridge: Harvard University Press, 1972.



THE PENETRATING POWER OF ALPHA AND BETA PARTICLES AND GAMMA RAYS.



Hunters Point Shipyard

ENVIRONMENTAL CLEANUP

NEWSLETTER

October-December 2002



This *Environmental Cleanup Newsletter* is the fourth in a series of quarterly newsletters describing the Navy's environmental cleanup program at Hunters Point Shipyard. Each newsletter includes articles and information updating various environmental cleanup activities, project progress, and key milestones. The Navy contracts with a local business to distribute these newsletters to individuals on the current mailing list.

MAKE SURE YOU GET YOUR COPY OF THE ENVIRONMENTAL CLEANUP NEWSLETTER

The *Environmental Cleanup Newsletter* focuses on providing the latest information and progress about the Navy's cleanup program at Hunters Point Shipyard. We want to make certain that everybody who is interested gets a copy of this newsletter. Use the **Hunters Point Shipyard Mailing List Update Form** on the back page of this newsletter to add your name and address to our mailing list. You will then receive the next newsletter as soon as it's published.

To provide greater access to environmental cleanup information at Hunters Point Shipyard, this newsletter is also available on the internet. Point your browser to <http://www.efdswnavy.navy.mil/Environmental/HuntersPoint.htm> for this newsletter and the other issues previously published.

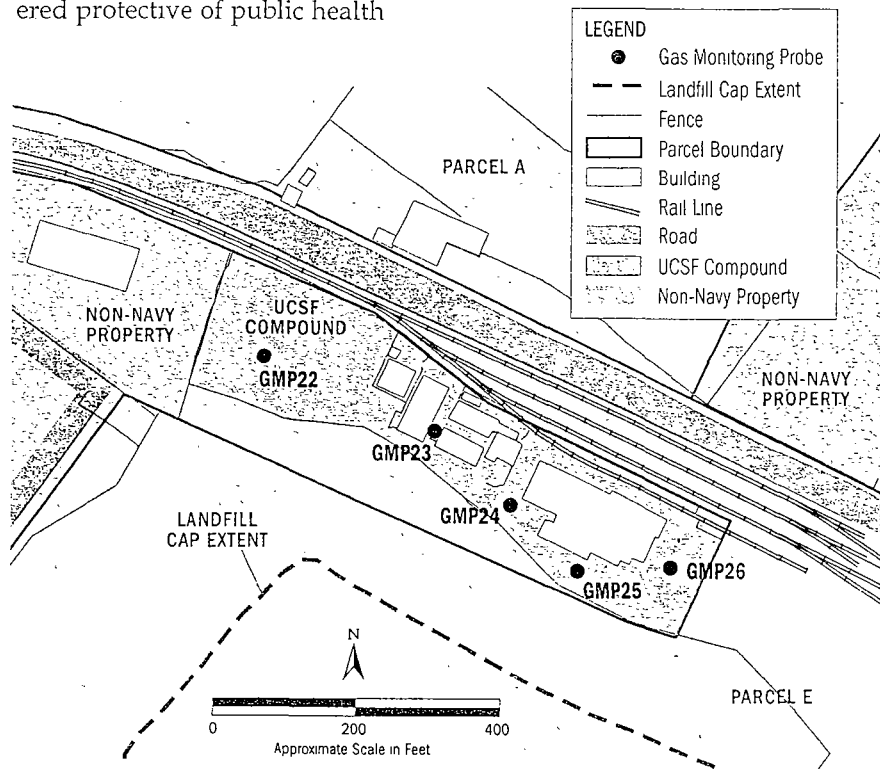
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Landfill Gas Removal Action

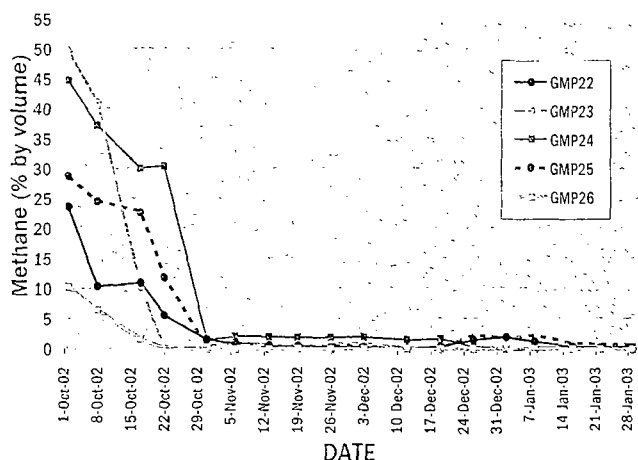
The Navy completed construction of a landfill gas extraction and treatment systems adjacent to the Parcel E landfill in early October 2002. It has been designed to address the high levels of methane present underground in landfill gas at the University of California, San Francisco (UCSF) property bordering the landfill. The Navy and its contractors built the system in less than two months. The system consists of an underground barrier wall and an active extraction system that stops the migration of the methane gas and removes it from the subsurface. From the time the system began operating in October 2002 through mid-January 2003, methane levels outside the barrier wall have been reduced to levels that allowed the extraction blowers to be shut off.

The barrier system is a physical barrier constructed of high density polyethylene extending from the ground surface to below the groundwater surface. It prevents landfill gas, which contains methane, from migrating beyond the edge of the landfill towards Crisp Avenue. Installed in conjunction with the barrier wall, the extraction system actively extracts the methane and landfill gases from beneath the ground surface that have migrated beneath the UCSF compound. The removal action has reduced the underground levels of landfill gas at the UCSF property to levels at or below 5 percent methane (by volume), the target level that is considered protective of public health.



CONTINUED ON PAGE 2

WEEKLY GMP MONITORING RESULTS IN UCSF: METHANE GAS



Notes Landfill gas extraction began on October 4, 2002
GMP Gas Monitoring Probe
UCSF University of California, San Francisco

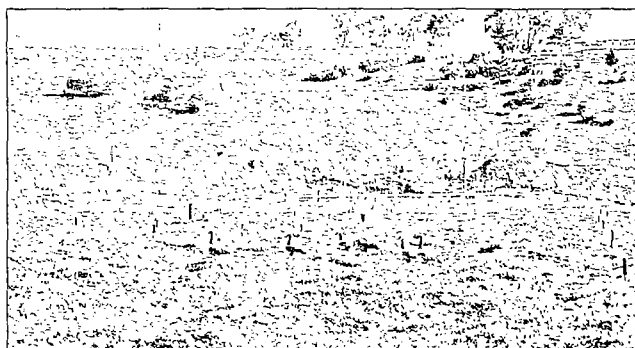
Monitoring tests conducted on January 20, 2003, determined that the landfill gas removal system has successfully reduced methane concentrations at all

necessary monitoring locations to below 1 percent by volume. The extraction system was shut down and the Removal Action entered the weekly monitoring phase. The methane concentrations at the monitoring probes and extraction wells will be measured weekly for four weeks. If the methane concentration does not rise above 1 percent in any extraction well, then samples will be collected for laboratory analysis to verify these measurements. Monitoring will be decreased to a monthly frequency if verification tests show that methane levels are at 1 percent or lower. The extraction will be restarted if methane levels greater than 1 percent in any extraction well are detected at any time during the weekly monitoring.

Although methane concentrations greater than 70 percent by volume were detected at some locations in the soil gas beneath the compound during the non-standard data caps investigation, no methane was detected inside the buildings on the UCSF compound or along Crisp Avenue.

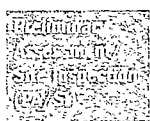
Stormwater Management Controls Installed at Hunters Point Shipyard

The use of vegetation is a recognized and recommended method of controlling storm water runoff and soil erosion. In November 2002, a new vegetative cover was planted on the landfill cap at Parcel E. The Navy applied for a new water service to furnish irrigation water for the cap since there were complaints of pressure drops from other customers whenever the irrigation system was used. As a condition for obtaining this new service, the City of San Francisco required that the area of the vegetative cover be plowed for planting, reseeded, and fertilized. A new irrigation piping system, booster pump,

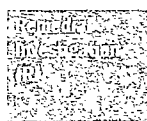


Cap vegetated with native species.

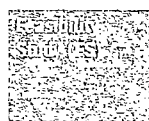
Installation Restoration Program Process



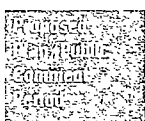
The PA/SI results in the discovery and verification of potential sites



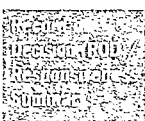
The RI identifies and confirms the sources and areas of soil and groundwater contamination



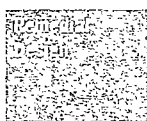
The FS identifies remedial alternatives for soil and groundwater cleanup



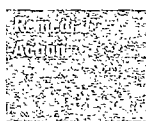
The public has the opportunity to comment on the preferred remedy and other proposed alternatives



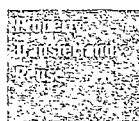
The selected remedial alternative and responses to public comments are documented in the ROD



Detailed specifications for the selected remedies are developed



A qualified contractor begins the closure actions according to specifications



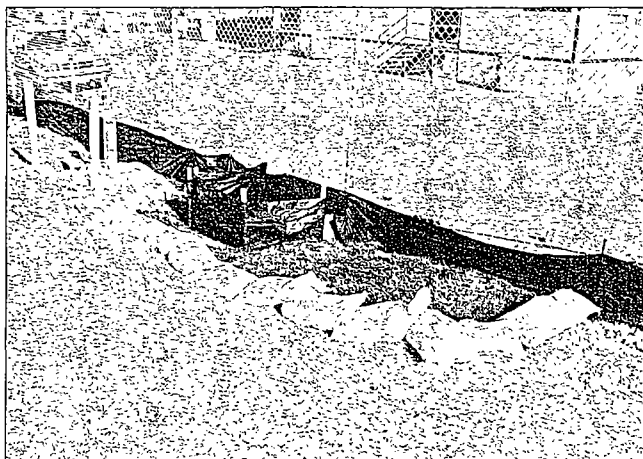
A Finding of Suitability to Transfer (FOST) is prepared.

Note The Navy's IR Program is consistent with the guidelines outlined in the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) and the National Oil and Hazardous Substances Pollution Contingency Plan (NCP). Interim actions or Removal Actions, may be performed at sites at any point in this process. The Navy meets on an ongoing basis with the BRAC [Base Realignment and Closure] Cleanup Team (BCT) to determine ways to accelerate the cleanup of Hunters Point Shipyard.

and backflow preventer were installed to provide water when there is insufficient rainfall. The area affected by construction of the barrier system was also replanted in the same manner as the vegetative cover

Other methods of storm water runoff and erosion control are silt fences, straw bales, surface grading or drainage swales, jute matting, fiber rolls, and retention basins. Each of these methods is also being used or planned for the landfill area. The silt fence at the outlet end of the drainage swale through the center of the landfill cap was completely rebuilt. All of the straw bales were replaced with new ones. In addition, straw bales were also placed where there appeared to be a possibility of erosion.

Two drainage swales were constructed. One to convey some of the storm water runoff to the existing drain system on the western part of the landfill. The other drainage swale was built to prevent runoff from flowing onto the UCSF compound by diverting it to new catch basins that connect to the base stormwater



Gravel bags, vegetation and silt fence provide temporary sediment control near UCSF parking lot



Gravel bags and vegetation provide temporary sediment trap; silt fence provides tertiary protection. Pipe allows flow under gravel road to the south.

drain system. Both of these swales were lined with jute matting and seeded.

Along the shoreline, to the east of the landfill, erosion was observed after the first major storm of the season in December. The erosion channels were filled with gravel and fiber rolls, also called straw waddles, were placed as a temporary measure to prevent the recurrence erosion. Plans are being prepared for a retention basin to replace the fiber rolls. The retention basin will contain the rainfall runoff from the east side of the landfill and allow it to be discharged at a rate that will not cause erosion. Enough retention time will be provided to allow any silt which may have been carried with the runoff water to settle.

Inspections of these control methods after later storm events have shown them to be effective. Inspections will continue and any inadequacies in the storm water control system will be corrected.

RAB MEETING INFORMATION

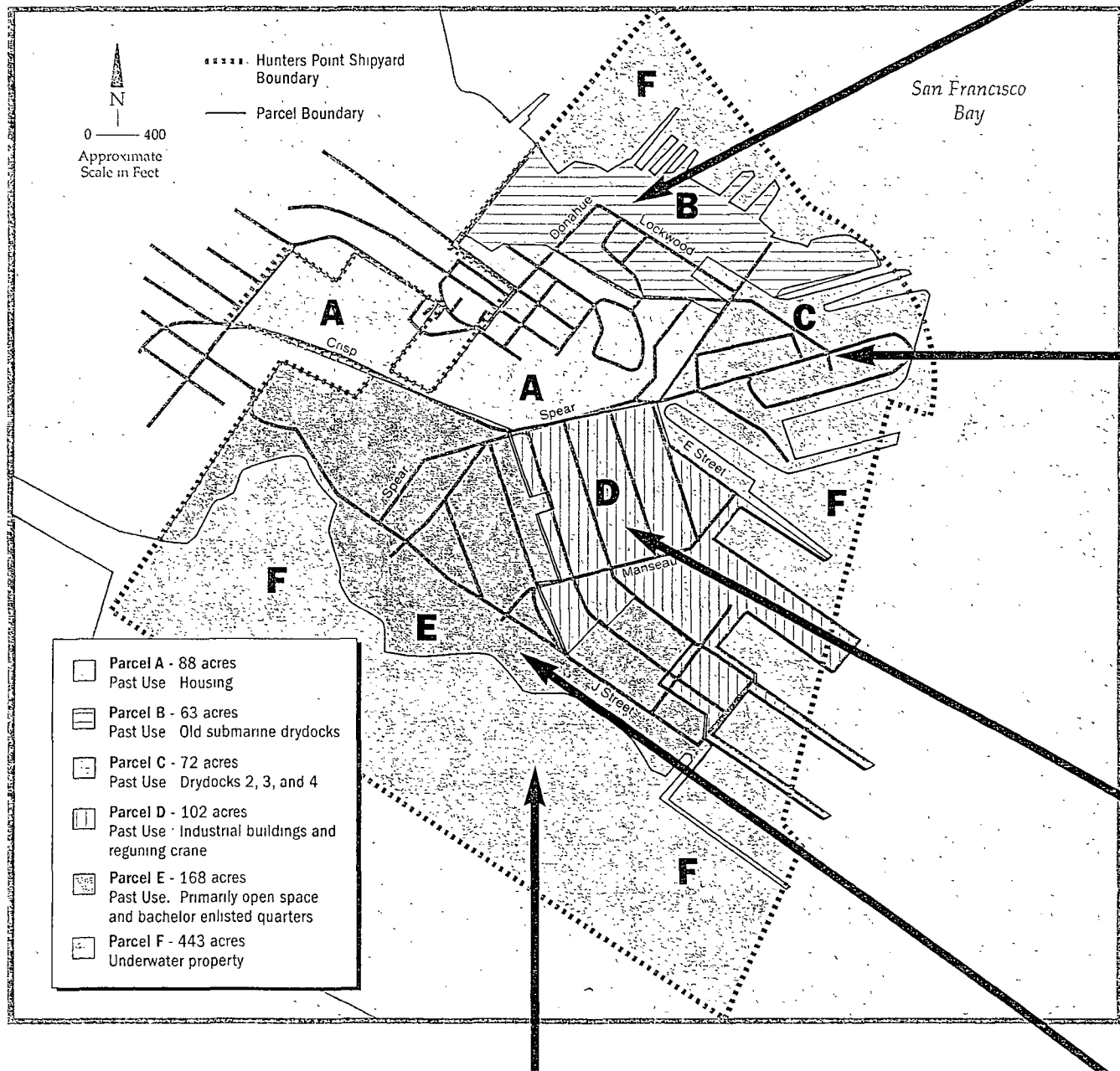
Hunters Point Shipyard RAB members and the interested public have been regularly informed of the cleanup work underway at the Shipyard. Approximately 60 people regularly attend and participate at the monthly RAB meetings.

RAB meetings are typically held from 6:00 to 8:00 p.m., the fourth Thursday evening of each month at Dago Mary's Italian Restaurant, (Building #916 at the Shipyard). For current RAB and Subcommittee schedule information, please contact Mr. Keith Forman, Base Realignment and Closure Environmental Coordinator and RAB Navy Co-chair.

If you are interested in becoming a RAB member, please indicate your preference on the **Hunters Point Shipyard Mailing List Update Form**—see the back page. We will mail you an application promptly. The application is also available online at the Navy's web page; <http://www.e fds w .navfac.navy.mil/Environmental/HuntersPoint.htm>

Parcel-by-Parcel Status Update—October-December 2002

Hunters Point Shipyard is divided into six parcels (Parcels A through F) to more effectively manage the cleanup effort and efficiently transfer the property to the City of San Francisco (See the figure on page 4). Although chemical contamination resulting from the Shipyard activities varies from site-to-site on each parcel, chemical contaminants at a site may include compounds present in industrial solvents, PCBs, pesticides, gasoline, diesel, motor oil, and/or metals. Following are brief descriptions of environmental investigation/cleanup accomplishments that occurred during October-December 2002 and a look ahead at upcoming activities.



Parcel F October-December 2002 Activities

- Prepared and submitted responses to agency comments on the draft validation study (VS) report

What's Next?

- Continue preparation of responses to remainder of agency comments on the draft VS report
- Prepare draft final VS report

Parcel B October-December 2002 Activities

- Prepared and submitted the July-September 2002 quarterly groundwater monitoring report
- Continued field work in support of the soil vapor extraction (SVE) Confirmation Study
- Continued human health risk assessment (HHRA) work in support of the risk management review (RMR) process
- Conducted October-December 2002 quarterly groundwater monitoring event

What's Next?

- Continue the RMR process with the objective of unifying cleanup and reuse.
- Conduct January-March 2003 quarterly groundwater monitoring event
- Prepare and submit performance report for the Phase II SVE treatability study at Building 123

Parcel C October-December 2002 Activities

- Initiated field work for zero-valent iron injection treatability study at Building 272
- Continued preparation of Phase III Parcel C Groundwater Data Gaps Investigation Report
- Prepared and submitted revised total petroleum hydrocarbon (TPH) corrective action plan (CAP) for Parcels C, D, and E.
- Evaluated dense non-aqueous phase liquid (DNAPL) removal technologies for use at Building 134
- Evaluated SVE performance data for the Phase II SVE treatability study at volatile organic contaminant (VOC) areas (study also includes portions of Parcels B and E).
- Continued radiation screening surveys for the Historic Radiological Assessment (HRA)
- Continued HHRA work in support of the RMR process and the draft Parcel C revised feasibility study (FS)

What's Next?

- Continue HHRA work in support of the RMR process and the draft Parcel C revised FS.
- Initiate post-injection sampling for iron injection treatability study at Building 272
- Continue evaluation of performance data for Phase II SVE treatability study at VOC areas.
- Continue radiation screening surveys
- Prepare and submit the final closeout report for Dry Dock 4 removal action

Parcel D October-December 2002 Activities

- Continued HHRA work in support of the RMR process and the draft Parcel D revised feasibility study (FS)
- Continued radiation removal action activities near Building 364
- Prepared and submitted revised TPH CAP for Parcels C, D, and E
- Prepared and submitted Phase III Groundwater Data Gaps Investigation Report

What's Next?

- Continue radiation removal action activities at Building 364
- Continue HHRA work in support of the RMR process and the draft Parcel D revised FS
- Complete waste consolidation work. Prepare and submit draft Parcel D waste consolidation summary report.

Parcel E October-December 2002 Activities

- Prepared and submitted revised TPH CAP for Parcels C, D, and E
- Continued field work for non-standard data gaps investigation, and continued operation and monitoring of the landfill gas extraction system.
- Continued preparation of Phase III Parcel E Groundwater Data Gaps Investigation Report.
- Began Phase II field work for the standard data gaps investigation
- Continued evaluation of SVE performance data for Phase II SVE treatability study at Building 406 (limited field activities in Parcel E)
- Continued radiation screening surveys.
- Continued operation of groundwater extraction system at industrial landfill

What's Next?

- Prepare and submit final landfill cap removal action closeout report.
- Prepare and submit draft storm water discharge management plan and draft operation and maintenance plan for the industrial landfill
- Submit Phase III Parcel E Groundwater Data Gaps Investigation Report.
- Continue radiation removal action activities
- Continue radiation screening surveys
- Continue operation of groundwater extraction system at the industrial landfill and evaluate methods for optimization.

BART Soil Stockpile Erosion Control

During construction of the Bay Area Rapid Transit (BART) Airport Extension project, excavation activities resulted in a surplus of soil. This material was offered to the Navy at no cost. Anticipating the need for clean fill material in the future to replace contaminated material that would be removed from Hunters Point, the Navy agreed to accept the soil after test results assured that no contaminated materials would be brought onto the base. This material has been stockpiled on Parcel E near the former dormitory, Building 600.

Runoff and erosion control measures were put into place at the time the material was stockpiled. Some of this material was used as backfill on Parcel B and during construction of the Parcel E landfill barrier system.

An upgrade to the runoff and control system for the stockpiled soil is being planned. The smaller stockpiles of material will be consolidated into a larger pile. Slopes will be regraded and seeded. Silt fences will be replaced and extended where necessary. Measures are also included to prevent silt from entering catch basins in the vicinity. A contract to perform this work has been negotiated with ITSI and the upgrade is scheduled to be completed by February 2003.

Hunters Point Shipyard Information Repositories

The Navy maintains two Information Repositories for Hunters Point Shipyard that contain project documents and other reference materials. The Main Library in downtown San Francisco contains a nearly complete record of all the documents related to the cleanup of Hunters Point Shipyard. The Bayview/Anna E Waden Branch Library houses a smaller collection of documents and it contains copies of the major investigation reports for each parcel as well as documents related to more current activities. Public Information Material binders, containing archives of RAB meeting minutes and handouts, are available at both libraries

The Navy encourages you to visit the libraries and review the documents prepared for Hunters Point Shipyard to gain a more complete understanding of the cleanup investigations.

CITY OF SAN FRANCISCO MAIN LIBRARY

Science, Technical, and Government Documents Room

100 Larkin Street
San Francisco, CA 94102
(415) 557-4500

BAYVIEW/ANNA E. WADEN BRANCH LIBRARY

5075 Third Street
San Francisco, CA 94124
(415) 715-4100

NOTE: Hunters Point Shipyard RAB meeting minutes and agendas will continue to be available to the public at the Information Repositories (listed above) established for the Hunters Point Shipyard cleanup program. Documents are also available on the Navy's web page at <http://www.efdswnavfac.navy.mil/Environmental/HuntersPoint.htm>

For more information on the cleanup program at Hunters Point Shipyard, please contact Mr Keith Forman, Base Realignment and Closure Environmental Coordinator and RAB Navy Co-chair.

Agencies and Organizations Involved in the Environmental Cleanup Program

LIST OF CONTACTS FOR REGULATORS, NAVY, AND RAB CO-CHAIR			
Name/Title	Organization	Phone	E-mail
Ms. Marie Avery Base Closure Manager	Naval Facilities Engineering Command, Southwest Division	(619) 532-0949 Fax: (619) 532-0995	averyma@ efdswnavfac.navy.mil
Mr. Keith Forman BRAC Environmental Coordinator	Naval Facilities Engineering Command, Southwest Division	(619) 532-0913 (415) 515-6216 Fax: (619) 532-0995	formanks@ efdswnavfac.navy.mil
Mr. Dave DeMars Lead Remedial Project Mgr	Naval Facilities Engineering Command, Southwest Division	(619) 532-0912 Fax: (619) 532-0995	demarsdb@ efdswnavfac.navy.mil
Ms. Claire Trombadore Project Manager for Parcels A, B, and D	U.S. Environmental Protection Agency	(415) 972-3013 Fax: (415) 947-3518	trombadore.claire@epa.gov
Mr. Michael Work Project Manager for Parcels C, E, and F	U.S. Environmental Protection Agency	(415) 972-3024 Fax: (415) 947-3518	work.michael@epa.gov
Mr. Chein Kao Project Manager	California Department of Toxic Substances Control	(510) 540-3822 Fax: (510) 849-5285	ckao@dtsc.ca.gov
Ms. Julie Menack Project Manager	California Regional Water Quality Control Board	(510) 622-2401 Fax: (510) 622-2460	jsm@rb2.swrcb.ca.gov
Mr. Lynne Brown RAB Community Co-chair	Hunters Point Resident	(415) 285-4628	L_Brown123@hotmail.com

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Hunters Point Shipyard Mailing List Update Form

To better serve the community regarding the Hunters Point Shipyard environmental cleanup program, we are continuing to update our mailing list. **Please complete the information form and return it as soon as possible.**

1. ☐ **YES**, Please add me to the mailing list. I would like to receive the following (please check all that apply):
 - a. ☐ fact sheets, proposed plans, and newsletters
 - b. ☐ monthly Restoration Advisory Board meeting agendas, minutes, and notices of upcoming meetings
2. ☐ I would prefer to receive the mailers by (please check one box and then complete all information in the mailing box to the right):
 - a. ☐ U.S. Mail
 - b. ☐ E-mail
3. ☐ **PLEASE DELETE ME FROM THE MAILING LIST.** I do **NOT** wish to receive Hunters Point Shipyard mail.
4. ☐ I have been receiving **EXTRA MAILINGS**. Please **provide the correct mailing information** in the box to the right.

Please return by U.S. Mail or FAX to: Navy CLEAN 3, CTO-007, Community Relations Office at (619) 687-8787.

Mailing Box—Please provide ALL information:

Name _____

Organization _____

Address _____

City _____

State _____ Zip _____

Area Code: _____ Telephone _____

FAX or alternate number: _____

E-mail: _____

Please indicate if you are interested in becoming a
Restoration Advisory Board Member: Yes No

Hunters Point Shipyard Restoration
Advisory Board

Meeting Minutes

Radiological
Subcommittee

March 26, 2003

Literacy for Environmental
Justice

Attendees: Ahimsa Sumchai-chair, Brenda Salgado-LEJ, Clifton Smith-resident, Dana Lanza-LEJ, Daryl DeLong-NWT, Dave DeMars -Navy, Richard Lowman - RASO, Laura Lowman-RASO, Martin Offenhauer - Navy

Introductions were made. The meeting was held in the newly constructed LEJ outdoor "hut". Laura Lowman, Navy Low Level Radioactive Waste Program Director reported that the historical research for the Draft Final HRA is expected to be concluded by April of 2003 and that the next phase of the HRA will consist of the review of "thousands of pages" of research documents and previously classified information. She reports having 206 responses to newspaper ads soliciting potential interviews for information pertaining to historical operations on the base. There have been 161 potential interviews identified and the Lowmans have conducted telephone screenings of all respondents. Most have yielded a paucity of information. The interview process is time intensive taking up to 20 minutes to conduct screenings and up to 1 1/2 hour to conduct an interview. Many of the respondents are aging individuals and some view the RASO information gathering process as a government action arousing suspicion. The oldest respondent is 92 years of age. Respondents employed by Triple A Machine shop as a group are younger. Respondents have been located as far away as British Columbia, Hawaii and as close as Sacramento where a small community of retirees has been identified. Most have demonstrated little knowledge of radiological operations at HPS.

Lowman emphasized that radiological operations at HPS have been difficult to historically document primarily due to the lack of computerized information during this era. Important information has been gleaned, however, from the records of former NRDL scientist C. Sharp Cook, the weekly social bulletins published for NRDL staff and by information given by a surviving Health Physicist who contributed an interview to the Volume II HRA named Filbert Fong.

A discussion centered on methods of disposal of irradiated animals. It is believed that up to 30,000 animals were used in NRDL experiments including mice, rats, cows, mules, pigs and dogs. Procedures for

disposal were not well defined. Animals injected with radionuclides were packaged in casks and drums and disposed of in the Farallons. The possibility that the Parcel E landfill was used for disposal of small animal carcasses was intertained, Mr. Fong reports in the response to comments of the HRA that these carcasses were not considered to be a source of radiation exposure.

Dana Lanza, LEJ director asked how the Navy was using the experience at HPS as a lesson. Lowman reported that the experience in preparing and updating the HRA is being applied at other former military installations like China Lake, located near the Mojave desert, where the NRDL also conducted operations.

Lanza reported a community resident is compiling a visual history of the Shipyard and might be a good RASO contact. Lanza also reported the activities of LEJ youth in organizing a youth "teach in" about the toxic impact of war on communities called "Bomb Tracks". It will be held on Friday, May 19 at the Joseph E. Lee Community Center and that adults are welcome to attend an afternoon accountability session. LEJ has invited a Navy representative to sit on a media, political "Accountability Session". Sumchai reported she had referred the LEJ youth organizing committee to Marie Avery- the person in charge of HPS Base closure operations.

Discussion centered on the status of radiological operations at HPS with a specific emphasis on Parcel D, Buildings 366/351-B and the Area 5 d19-D23 warehouses used by NRDL from 1946-1952. This region is now a residential community called Mariners Village and residents were informed by Navy representatives that historical evidence of possible radiological operations there is being investigated by the Navy. These buildings were demolished in 1952 and the sites are being investigated. Lowman restated her belief that the likelihood of actual radiation contamination of the region is low. The storehouses were not documented to have been used for storing radioactive materials. This region has not been classified as MARSSIM Class I.

Sumchai asked how residents responded to the Navy's notification that they may be living in a radiation impacted area. Martin Offenhauer reported he was a member of the delegation that informed the residents of the Navy's intent to investigate Mariners Village and that he perceived people were not extremely disturbed by the news. Many were more concerned about the quality of the water pressure in Mariners Village. Sumchai noted that the S.F. Weekly article on the announcement contained a great deal of factual misinformation and identified Parcel D sites as being in Mariners Village.

A focus discussion centered on concerns generated by the announcement that the Navy would begin Class I investigations at Building 351-A- a site that is being rented to artists by Hunters Point Artistic Studios. Sumchai expressed concern that a great deal of historical evidence existed to preclude the Navy and Redevelopment agency from siting any human occupants on Parcel D in the area where active investigation and remediation of Buildings 364 and 351-B is being conducted.

A discussion focused on Radiological operations at Parcel E, B, C & D concluded the meeting. Clarification was offered as to the amount of the Parcel E landfill that is capped. The ATSDR, in its report to the RAB, documented that the Parcel E landfill is capped only in the 37% burn area ignited by the August 2000 fire. Dave DeMars reported that 80% of the landfill is capped.

The April meeting of the Radiological subcommittee will be held at the S.F. Bayview Newspaper from 6-8pm. The agenda will focus on the response to comments for the Draft HRA published March 7, 2003.

HPS Membership & Bylaws Subcommittee Meeting Notes
Meeting Minutes for 8 April 2003, 6-8pm
San Francisco Public Library, Anna E. Waden Branch

The subcommittee meeting was called to order by Keith Tisdell, RAB member and Subcommittee Leader, at 6:00pm. RAB members in attendance at the meeting were Lynne Brown (Community Co-chair), Barbara Bushnell, Maurice Campbell, Charles Dacus, Lea Loizos, Kevyn Lutton, Jesse Mason, Raymond Tompkins and, Caroline Washington. Also in attendance were Ronald Keichline, Innovative Technical Solutions, Inc. (ITSI), and Harry Shin, RAB applicant. Topics on the agenda: (1) enforcing 2-year term limits for RAB members, (2) clarifying requirement for prospective RAB member applicants to attend a Membership & Bylaws Subcommittee meeting, and (3) clarifying establishment of subcommittee chairperson.

Harry Shin, from Associated Builders submitted his RAB membership application for review. He is a chemical engineer. His application was unanimously accepted for approval.

- ***Motion to the RAB – Accept the membership application for Harry Shin, Associated Builders, under the Local Businesses category. This category total will increase to 8.***

Community Based Non-profit	Environmental Organizations	Local Businesses	Resident "at large"
Barbara Bushnell (R O S E S)	Lynne Brown (Communities First Coalition)	Lani Asher (Artist on the Shipyard)	Marie J. Franklin
Charles Dacus (R O S E S)	Karen Pierce (HEAP)	Maurice Campbell (New Calif Media, SF Bayview)	Kevyn Lutton
Helen Jackson (All Hallows Gardens)	Lea Loizos (ARC Ecology)	Marie Harrison (Green Action)	Keith Tisdell
Jesse Mason (Bayview Advocates)	Ahimsa Sumchai (Health & Env Resource Center)	Mitsuyo Hasegawa (JRM & Assoc)	
Sulu Palega (HP Boys and Girls Club)	Ray Tompkins (BVHP Coalition on the Env)	J.R. Manuel (JRM & Assoc)	
Dorothy Peterson (Shoreview Residents Assoc)		Leilani Wright (JRM & Assoc)	
Melita Rines (India Basin Neighborhood Assoc)		Georgia Oliva (Artist on the Shipyard)	
Caroline Washington (Network for Elders)		Harry Shin (pending RAB approval) (Associated Builders)	
Category Total	Category Total	Category Total	Category Total
8 (Full)	5	8 (Full)	3

Two Action Items were identified during the discussion. The first Action Item involved having multiple copies of completed applications available at future subcommittee meetings so that everybody could review the applications at the same time rather than wait while a single copy is circulated. The second Action Item paralleled the second agenda topic – the RAB Membership Application will be revised and clearly indicate that prospective RAB applicants need to attend a Membership & Bylaws meeting before being considered for RAB membership. Mr. Keichline and Mr. Tisdell will work together to revise the RAB Membership Application.

The discussion then moved to third agenda topic, selection of subcommittee chairpersons. Mr. Tisdell and Mr. Brown stated that the RAB Bylaws were clear about the election of a subcommittee chair. Per Section 16 of the Bylaws:

Subcommittees. Subcommittees shall be established by a vote of the RAB. ***Each subcommittee shall elect a subcommittee chairperson, who shall be a RAB representative*** (emphasis added). Subcommittees should set up a Mission Statement and develop operating procedures. Members of the public may sit on and participate in any subcommittee.

There was no motion put forth by the subcommittee, but rather the subcommittee ruled that the Bylaws are clear on the question and will make an announcement at the 24 April 2003 RAB meeting that the Membership & Bylaws Subcommittee recognizes the March 03 election of Lea Loizos as the leader of the Technical Review Subcommittee (see Meeting Minutes, Technical Review Subcommittee, dated 3/12/03). Ms. Bushnell objected, stating that prior practice for selecting subcommittee chairs was based on volunteering for the position at a full RAB meeting. Ms. Lutton stated that the Bylaws should take precedence over past practice. Mr. Campbell and Mr. Brown agreed, and Mr. Tisdell closed the discussion. Mr. Tompkins asked that the Minutes reflect any opposing opinions.

The final topic discussed was enforcing the two-year term limit for RAB members. Section 9 of the Bylaws state:

Term of Office. ***Each community member will serve an initial two-year term*** (emphasis added). Elections for new members or reappointment of existing members will be held the meeting following receipt of a member application or reappointment date. All appointees to vacant seats will serve out the term of that seat. Community members may remain indefinitely to their seat on the RAB.

Mr. Tisdell said that he would announce the subcommittee's decision at the April RAB meeting. Mr. Keichline agreed to complete the revised RAB Membership Applications (as discussed above) prior to the April RAB meeting. Mr. Tisdell said that all RAB members who joined the RAB prior to May 2001 would be asked to complete a new application. The applications will then be reviewed by the Membership & Bylaws Subcommittee at their next scheduled meeting.

Mr. Tompkins raised a question about revising the Bylaws by adding an amendment that the Bylaws will only be amended once per year. The time to consider annual amendments will be the month following the election of the RAB Community Co-chair. Mr. Tisdell agreed to forward that motion to the RAB.

- ***Motion to the RAB – Amend the HPS RAB Bylaws. Add a statement to Section 17 stating that the Bylaws will only be revised once per year, in the month following election of the RAB Community Co-chair.***

If accepted by the RAB, the Membership & Bylaws Subcommittee will make the revisions at the next scheduled subcommittee meeting.

The meeting adjourned at 7:05 p.m.

Minutes of Technical Subcommittee—RAB

4/10/2003

6:00 PM

Anna Waden Library-Third & Revere St.

Attendees: Barbara Bushnell, Maurice Campbell, Lynne Brown, Kevyn Lutton, Lea Loizos, James Morrison, Francisco da Costa, Charles Dacus, Rawan Naser. Julie Labonte, Maureen Barry

Agenda topics: Landfill gas extraction data, Groundwater report on Parcel B, and HPS Decentralized Water Treatment Proposal

Presenters:
Julie Labonte, San Francisco Public Utilities Commission

Topics Covered:

1. Landfill Gas Extraction System

A brief discussion on the status of the landfill gas extraction system was held in response to an email from RAB member Ahisma Sumchai saying that she was unable to access the data on the Internet. Several subcommittee members tried successfully to access the data. Lea Loizos pointed out that the data that is currently available on the web is taken from field instruments. Due to the length of time it takes to receive results from the lab, we are still waiting to see lab results.

2. Update on Groundwater Issues at Parcel B

Kevyn Lutton asked about the extent of groundwater contamination on Parcel B. There was a brief discussion on the Parcel B Annual Groundwater Monitoring Report, which was distributed by the Navy in late February. The 5-year review for Parcel B is required by June 2003, at which time the BCT will look at all the available data and determine whether or not the current monitoring system is adequate and if the groundwater contamination is being addressed. A 5-year review is required under CERCLA five years after a ROD is signed to assess how well the remedial action is working. Ms. Loizos explained how the location of the groundwater wells was chosen and briefly summarized the results of the latest sampling round.

3. HPS Decentralized Wastewater Treatment Study

Julie Labonte, Infrastructure Program Development Manager at the San Francisco Public Utilities Commission (PUC), gave a presentation on the feasibility study of a decentralized wastewater treatment at HPS currently being studied by the PUC. She agreed to this presentation at the request of Barbara Bushnell who had heard her at a ROSES meeting the week before.

The purpose of the study is to look at various ways to deal with wastewater produced on the Shipyard after redevelopment and planning for this before it begins. Another main objective of the study is to look at how to minimize, if not eliminate, additional flow to the Southeast Plant. Subcommittee members expressed the community's concerns with the Southeast Plant and the fact that it receives 80% of the City's wastewater and waste from Brisbane and So. San Francisco. Ms. Labonte agreed with the concerns of the community, however the purpose of this study is to deal with wastewater from the Shipyard only. A citywide Master Plan will be looking at how to deal with the Southeast Plant.

The PUC is evaluating three different treatment systems for the Shipyard, all of which are decentralized, meaning the waste is treated on site and reused on site. These systems provide an opportunity to recycle water, which is another main focus of the study. Some possible uses for recycled water include irrigation, industrial cooling waters, wetlands, and toilet flushing.

She provided us with a draft of the revised evaluation criteria, which they are using to consider the various approaches and are reaching out for public comment on these criteria. A copy is attached to these minutes.

The project is working under a grant from the National Decentralized Water Resources Capacity Development Project and is to be completed in December. You may contact Maureen Barry at (415) 554-3297 for more information. They are hoping to give a presentation to the full RAB in the future. Handouts from the presentation are available upon request. (Contact Lea Loizos at 495-1786.)

After the presentation, there was some discussion about the current and former wastewater treatment pipes on the Shipyard. Ms. Labonte pointed out the location of the sewage pump station built in the 1940's (original sewer system was built in 1940s so it is assumed that the main sewage pump station was built during the same time period – Ms. Labonte mentioned that age of pump station should be verified), which is located at Building 819 on Parcel A. She explained how a "wet well" works and that sediments often accumulate at the base of the well, especially if they are not cleaned out periodically. Subcommittee members plan to investigate the sampling done at Building 819 to ensure that there are no contaminated sediments in the wet well of the sewage pump station.

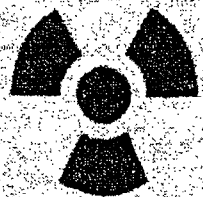
On 4/16/03 Ms. Labonte followed up with an email concerning issues about the composition of wastewater from the shipyard. She confirmed that the city's analysis of water from HPS indicate that the sewage generated at HPS between 2001 and present, complies with San Francisco's local limits for discharge to the city's combined sewage system. She also assured us that the metals and organic priority pollutant concentrations of samples fall well below the State's criteria for hazardous waste (i.e., "toxicity characteristic", 22 CCR 261).

Minutes prepared by Lea Loizos, edited B Bushnell and J. Labonte
4/17/2003

Revised Evaluation Criteria
(based on input provided at March 31, 2003 Technical Workshop)

CRITERIA ¹	DESCRIPTION
1. Community and Environmental Enhancement	<ul style="list-style-type: none"> • Will the treatment system support sustainability goals by leading to water and energy conservation? • Will the treatment system provide environmental, educational, and/or recreational opportunities? • Will the treatment system accommodate a wide range of reuse applications?
2. Effluent Quality	<ul style="list-style-type: none"> • How reliably can the treatment system continuously provide high quality effluent for desired purposes (various reuse applications)? • Are data available from comparable facilities to demonstrate treatment performance?
3. Implementation	<ul style="list-style-type: none"> • How readily can the treatment system be implemented on site? • What are the significant permitting, environmental review, environmental cleanup and/or constructability issues to resolve? • What are the specific surface and/or subsurface conditions, and topographic features required for the treatment system? • What is the treatment system's ability to accommodate a phased development approach?
4. Land Requirement	<ul style="list-style-type: none"> • How much land will be required for the treatment system to meet desired effluent water quality objectives?
5. Life Cycle Costs	<ul style="list-style-type: none"> • What are the expected capital and O&M costs over the life cycle (30-yrs, 50-yrs or 75 yrs) of the treatment system? • What is the value of the recycled water to be produced by the treatment system?
6. Operation and Maintenance (O&M)	<ul style="list-style-type: none"> • Will the operation and maintenance of the treatment system be relatively straightforward and trouble-free under all seasons and under all conditions? • Will operation staff with an average level of training, knowledge and expertise in wastewater treatment be capable to operate and maintain the treatment system? • Will the system require minimal maintenance?
7. Public Interests	<ul style="list-style-type: none"> • Will the project be a good neighbor to the Bayview Hunters Point (BVHP) community? • Will the project pose no risk to public health? • Will the project pose no risk to public safety? • Will the project create no odor problems? • Will the project be aesthetically neutral or aesthetically positive? • Will the project provide employment opportunities for the BVHP community?

¹ Criteria No. 1, 6 and 7 are qualitative, whereas Criteria 2, 3, 4 and 5 are quantitative.



Radiation.... & the Hunters Point Shipyard

What we know and what YOU need to know !

Recently, it was discovered that the former National Radiological Defense Laboratory had facilities located at the current site of Mariner's Village. There has been widespread concern about the possible health effects to the neighboring community. Find out about this issue and other issues relating to Radiation and the Hunters Point Shipyard at a community workshop:

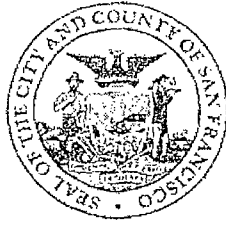
Wednesday, April 30th 6:30pm – 8:30pm
Milton Meyers Auditorium
195 Kiska Rd. (at Ingalls)
San Francisco, CA 94124

TOPICS TO BE DISCUSSED

- **RADIATION** - What you need to know about radiation, why it is dangerous and what to be concerned about.
- **STATE OF THE HISTORICAL RADIOLOGICAL ASSESSMENT (HRA)** - Overview of the HRA, why the Navy is re-doing the HRA, how the HRA affects the property transfer of the Shipyard and what the city is doing about radiation

Representatives from Mayor's Office, Redevelopment Agency and the Department of Public Health will be available to answer questions.

For more information on this event, please call Arc Ecology at (415) 495-1786



PLEASE
POST

The San Francisco Human Rights Commission
In conjunction with Assemblyman Mark Leno's Office,
Supervisor Sophie Maxwell's Office, the Mayor's Office of
Neighborhood Services, and the SF Department of the Environment

Workshop I: Energy Savings & Energy Efficiency

Invited speakers to cover:

- The City's energy policy
- Mitigation measures for BVHP residents

Saturday, April 26th, 10am - 1pm
Southeast Community Facility
1800 Oakdale Avenue

The Commission is responding to residents of the BVHP who requested
an investigation into Environmental Racism.

This workshop will coincide with the celebration and events of
Peoples Earthday: Urban Sustainability Fair (11am - 4pm) at Herons Head Park sponsored by
LEJ, the SF PUC, the SF Department of the Environment, and the SF Energy Cooperative

Information on future workshops is forthcoming
Human Rights Commission....Phone: 415-252-2500Fax: 415-431-5764